Lancaster Laboratories

LOQ/MDL Summary
Miscellaneous Wet Chemistry

SDG: USF15

Fraction:

Parameter	Default MDL	Default LOQ	Units
19 mm	0.50	1.0	% Passing
4.75 mm	0.50	1.0	% Passing
3.35 mm	0.50	1.0	% Passing
2.36 mm	0.50	1.0	% Passing
1.18 mm	0.50	1.0	% Passing
0.001 mm	0.50	1.0	% Passing
0.3 mm	0.50	1.0	% Passing
0.15 mm	0.50	1.0	% Passing
0.075 mm	0.50	1.0	% Passing
0.064 mm	0.50	1.0	% Passing
0.05 mm	0.50	1.0	% Passing
0.02 mm	0.50	1.0	% Passing
0.005 mm	0.50	1.0	% Passing
0.002 mm	0.50	1.0	% Passing
37.5 mm	0.50	1.0	% Passing
75 mm	0.50	1.0	% Passing
0.6 mm	0.50	1.0	% Passing
Oxidation Reduction Potential	10.0	10.0	mV
pH	0.0100	0.0100	Std. Units

Lancaster Laboratories

#7103 Particle Size Distribution

Sample: 6439960 Date: 9/24/11 (10/24/11) (10/28/11) Init./Emp. #: DSS/237 Batch #: 112977/0301A

Pan Balance ID#: 9458

Sieve Size (Mr)	Tare + Sample Wt.	Tare Weight
3 Inch	539.09	539.09
1.5 Inch	559.62	559.62
0.75 Inch	584.31	556.44
#4	529.75	503.45
#6	436.79	430.96
#8	438.89	429.55
PAN	579.09	386.83

rocks
stones

Time: 1300

Dried Organic Matter:

Odor:

Bottle code:

Prep. sple description:

Comments:

Sieve Size (Mr)	Tare + Sample Wt.	Tare Weight
#16	451.57	450.15
#30	294.33	291.41
#50	266.96	264.02
#100	231.81	229.46
#200	223.41	220.98
PAN	387.96	386.81

Analytical Balance ID#: 16862

Moisture

Tare Weight	Sample Weight	Oven Dry Weight
1.0754	5.0012	5.8933

Bulk Density

Tare Weight	Sample Weight	DI H_2O + Sple Wt.
61.7883	15.0021	108.5720

Hydrometer Readings Sample Wt. 50.14 Hydrometer ID #: 372418

Time	Temp	Reading
2 minutes	20°	1.021
5 minutes	20°	1.0195
15 minutes	20°	~~1.018~~ 1.018
30 minutes	20°	1.017
60 minutes	20°	1.016
250 minutes	20°	1.013
1440 minutes	20°	1.0115

Dr 10-27-11

Foam: —

Org. matter:

USF15 3789

Comments	

Oven ID#: 1121

Oven Temp In: 110°

Oven Temp Out: 111°

Verified by: MW 10/28/11 Date: 10-28-11

Particle Size Distribution

Sample:	Date:	Init/Emp #
6439960	10/24/11	DSS/237

Percent Passing		Particle Size
100.00		75
100.00		37.5
89.35		19
79.29		4.75
77.06		3.35
73.49		2.36
71.33		1.18
66.89		0.6
62.57		0.3
58.99		0.15
55.30	*	0.075
42.18	*	0.03503
38.19	***	0.02277
34.19	**	0.01326
31.53	**	0.00950
28.87	**	0.00680
20.88	**	0.00344
16.88	**	0.00146

* Used for line 1
** Used for line 2
*** Used for lines 1 and 2
\+ Calculated from line 1
++ Calculated from line 2

Log(particle size)
-1.124939
-1.455569
-1.642694
-1.877443
-2.022365
-2.167429
-2.463421
-2.835377

Line 1 Regression Output:	
Constant	92.8151737
Std Err of Y Est	1.7653887
R Squared	0.9805518
No. of Observations	3
Degrees of Freedom	1
X Coefficient(s)	33.8092359
Std Err of Coef.	4.7614573

Line 2 Regression Output:	
Constant	69.1831562
Std Err of Y Est	1.1628886
R Squared	0.9835360
No. of Observations	6
Degrees of Freedom	4
X Coefficient(s)	18.8002584
Std Err of Coef.	1.2162052

Particle Size	Calculated	% Passing
0.064	53.5 +	52.45
0.05	48.5 +	48.83
0.02	37 ++	37.24
0.005	25 ++	25.92
0.002	18 ++	18.44
0.001	15 ++	12.78

M16|1124 10-28-11

USFTS 3756

Particle Size Distribution

Sample:	Date:	Init/Emp #
6439960	10/24/11	DSS/237

Sieve Size (Mr)	Tare + Smp. Wt.	Tare Weight	Diff. (Mr)	% Passing
3 inch	539.09	539.09	0.00	100
1.5 inch	559.62	559.62	0.00	100
0.75 inch	584.31	556.44	27.87	89.3463303
# 4	529.75	503.45	26.30	79.2928135
# 6	436.79	430.96	5.83	77.0642202
# 8	438.89	429.55	9.34	73.4938838
PAN	579.09	386.83	192.26	

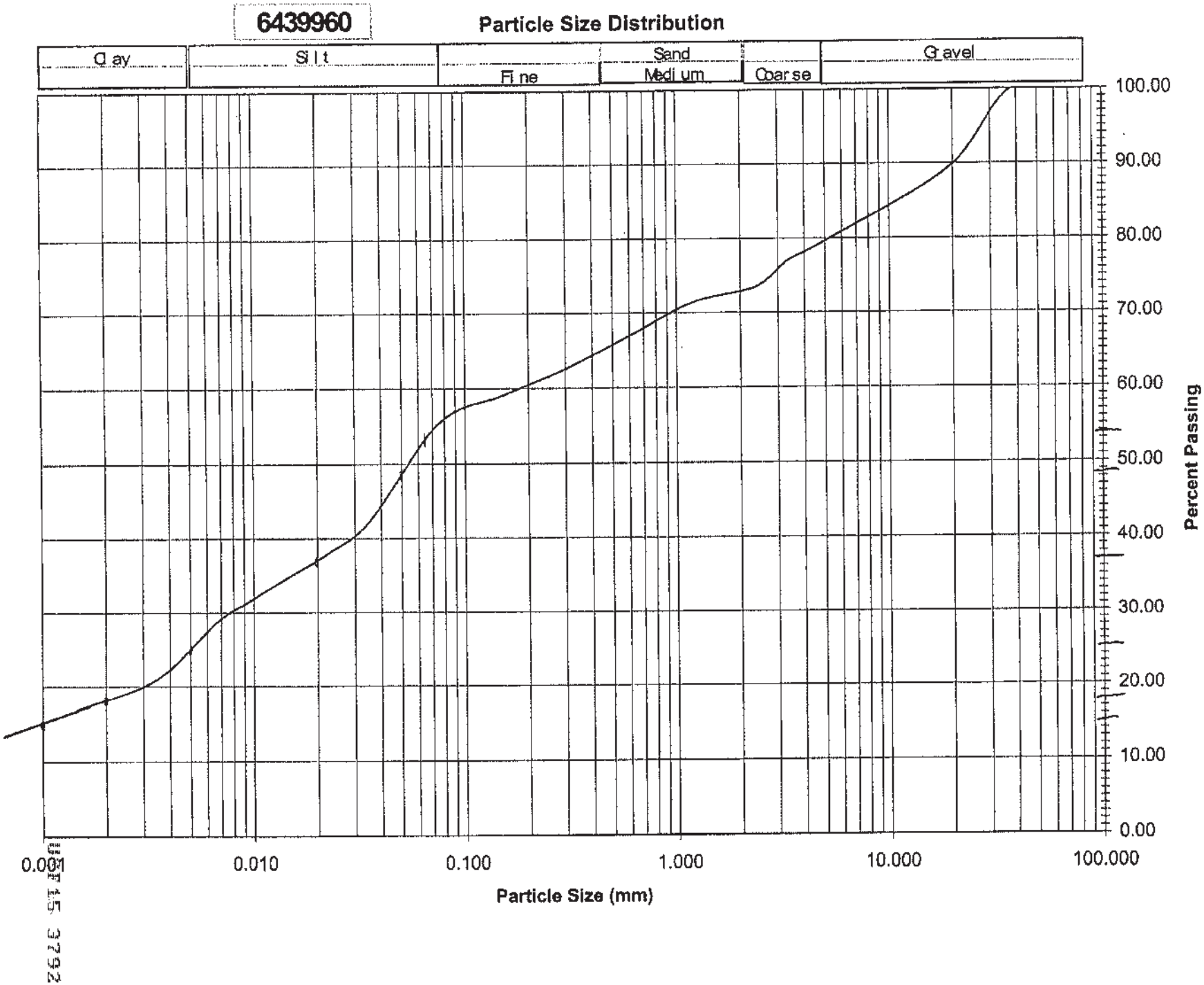
Sieve Size (Mr)	Tare + Smp. Wt.	Tare Weight	Diff. (Mr)	% Passing
# 16	451.57	450.15	1.42	71.3332973
# 30	294.33	291.41	2.92	66.8904012
# 50	266.86	264.02	2.84	62.5692282
# 100	231.81	229.46	2.35	58.9936097
# 200	223.41	220.98	2.43	55.2962681
PAN	387.96	386.81	1.15	

Moisture Tare Weight	Sample Weight	Oven Dry Weight	Ratio
1.0754	5.0012	5.8933	0.9633

Bulk Density Tare Weight	Sample Weight	DI H2O + Smp. Wt.	Vol H2O	Vol Soil	Result
61.7883	15.0021	108.5720	93.5699	6.4301	2.3331

Hydrometer Readings Time	Sample Weight Temp	50.14 Reading	Hydrometer #: Corr. Rdng.	372418 Part. Size	% Passing
2 minutes	20.0	1.0210	1.016	0.0350	42.1801753
5 minutes	20.0	1.0195	1.014	0.0228	38.1858405
15 minutes	20.0	1.0180	1.013	0.0133	34.1915058
30 minutes	20.0	1.0170	1.012	0.0095	31.5286159
60 minutes	20.0	1.0160	1.011	0.0068	28.865726
250 minutes	20.0	1.0130	1.008	0.0034	20.8770565
1440 minutes	20.0	1.0115	1.006	0.0015	16.8827217

USACE 3729


6439960
Particle Size Distribution
Clay
Silt
Sand
Fine
Medium
Coarse
Gravel
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
Percent Passing
0.001
0.010
0.100
1.000
10.000
100.000
Particle Size (mm)

Lancaster Laboratories

#7103 Particle Size Distribution

Sample: 6439961 Date: 10.25.1 Init./Emp. #: DSS/237 Batch #: 112987103014

Pan Balance ID#: 9458

Sieve Size (Mr)	Tare + Sample Wt.	Tare Weight
3 Inch	539.17	539.17
1.5 Inch	559.66	559.66
0.75 Inch	556.59	554.53
#4	504.79	503.44
#6	432.14	430.92
#8	431.96	429.42
PAN	613.38	386.90

Time: 1500

Dried Organic Matter:

Odor:

Bottle code: 73A

Prep. sple description:

Comments:

Sieve Size (Mr)	Tare + Sample Wt.	Tare Weight
#16	451.63	450.10
#30	295.46	291.45
#50	269.20	264.10
#100	235.86	229.47
#200	227.48	220.97
PAN	387.87	386.86

Analytical Balance ID#: 16862

Moisture

Tare Weight	Sample Weight	Oven Dry Weight
1.0838	5.0086	5.9068

Bulk Density

Tare Weight	Sample Weight	DI H_2O + Sple Wt.
58.8773	15.1418	109.2607

Hydrometer Readings Sample Wt. 50.21 Hydrometer ID #: 372418

Time	Temp	Reading	Comments
2 minutes	20°	1.0135	
5 minutes	20°	1.0105	
15 minutes	20°	1.0095	
30 minutes	20°	1.009	
60 minutes	20°	1.008	
250 minutes	20°	1.0065	
1440 minutes	20°	1.0055	

Foam:

Org. matter:

USF15 3793

Oven ID#: 1171

Oven Temp In:

Oven Temp Out: 110°

Verified by: MH/KR Date: 10-31-11

Particle Size Distribution

Sample:	Date:	Init/Emp #
6439961	10/25/11 15.00	DSS/237

Percent Passing		Particle Size
100.00		75
100.00		37.5
99.97		19
99.39		4.75
98.86		3.35
97.85		2.36
94.76		1.18
86.64		0.6
76.32		0.3
63.39		0.15
50.21	*	0.075
27.60	*	0.03575
17.67	***	0.02330
14.36	**	0.01355
12.71	**	0.00958
9.40	**	0.00685
4.43	**	0.00341
1.13	**	0.00144

* Used for line 1
** Used for line 2
*** Used for lines 1 and 2
\+ Calculated from line 1
++ Calculated from line 2

Log(particle size)
-1.124939
-1.446756
-1.632660
-1.868073
-2.018586
-2.164465
-2.466847
-2.842671

Line 1 Regression Output:	
Constant	122.6023409
Std Err of Y Est	1.6035598
R Squared	0.9953772
No. of Observations	3
Degrees of Freedom	1
X Coefficient(s)	64.7726260
Std Err of Coef.	4.4141676

Line 2 Regression Output:	
Constant	40.8686378
Std Err of Y Est	0.8630984
R Squared	0.9847413
No. of Observations	6
Degrees of Freedom	4
X Coefficient(s)	14.2777362
Std Err of Coef.	0.8886425

Particle Size	Calculated	% Passing
0.064	46 +	45.28
0.05	38 +	38.33
0.02	17 ++	16.61
0.005	7.5 ++	8.02
0.002	2 ++	2.33
0.001	0 ++	-1.96

MKG|1124 10|31|11

USACE 2794

Particle Size Distribution

Sample:	Date:	Init/Emp #
6439961	10/25/11 15.00	DSS/237

Sieve Size (Mr)	Tare + Smp. Wt.	Tare Weight	Diff. (Mr)	% Passing
3 inch	539.17	539.17	0.00	100
1.5 inch	559.66	559.66	0.00	100
0.75 inch	556.59	556.53	0.06	99.9740765
# 4	504.79	503.44	1.35	99.3907971
# 6	432.14	430.92	1.22	98.8636855
# 8	431.96	429.62	2.34	97.852668
PAN	613.38	386.90	226.48	

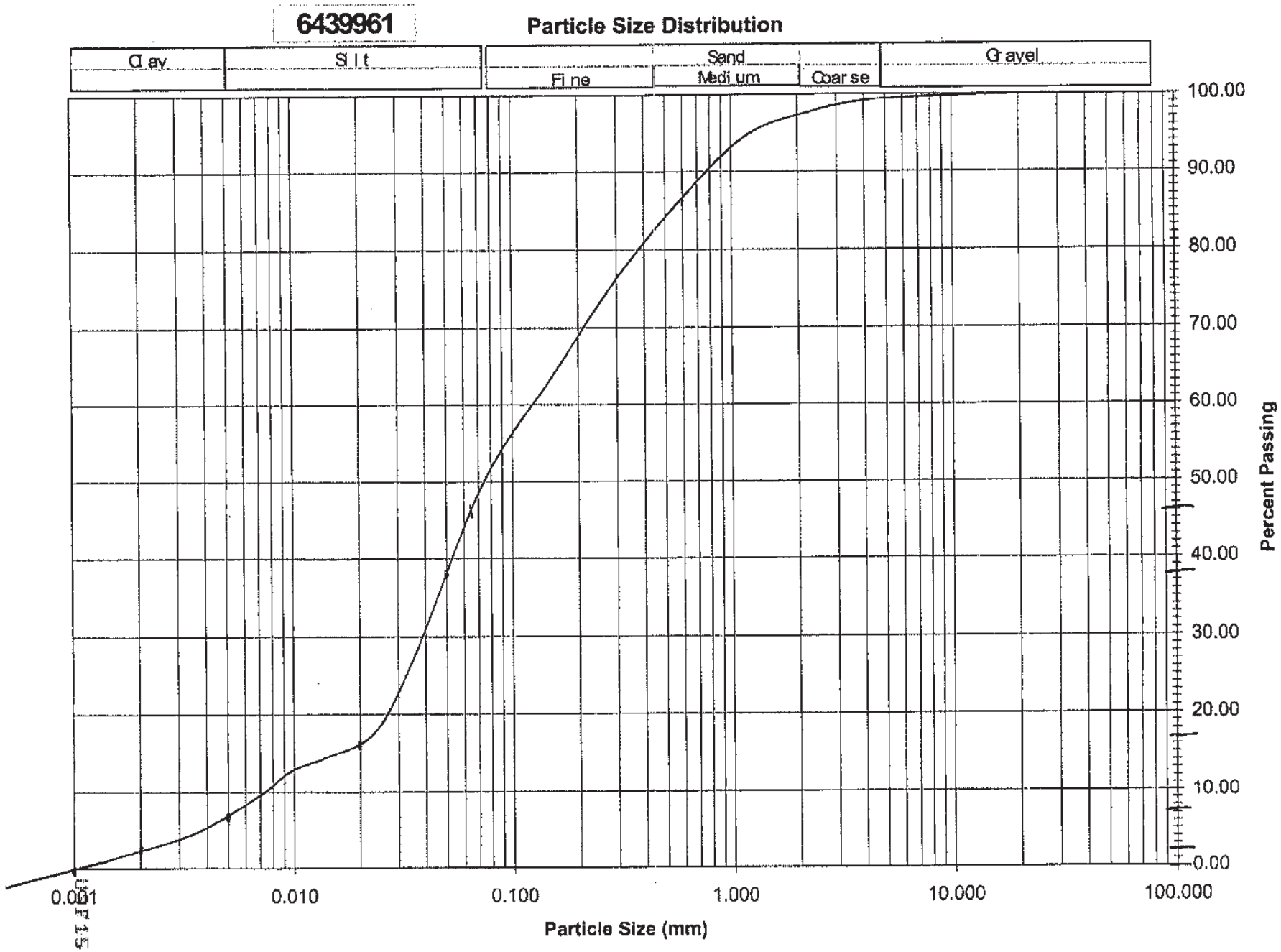
Sieve Size (Mr)	Tare + Smp. Wt.	Tare Weight	Diff. (Mr)	% Passing
# 16	451.63	450.10	1.53	94.7561545
# 30	295.46	291.45	4.01	86.6404559
# 50	269.20	264.10	5.10	76.3187445
# 100	235.86	229.47	6.39	63.3862472
# 200	227.48	220.97	6.51	50.2108862
PAN	387.87	386.86	1.01	

Moisture Tare Weight	Sample Weight	Oven Dry Weight	Ratio
1.0838	5.0086	5.9068	0.9629

Bulk Density Tare Weight	Sample Weight	DI H2O + Smp. Wt.	Vol H2O	Vol Soil	Result
58.8773	15.1418	109.2607	94.1189	5.8811	2.5747

Hydrometer Readings Time	Sample Weight Temp	50.21 Reading	Hydrometer #: 372418 Corr. Rdng.	 Part. Size	 % Passing
2 minutes	20.0	1.0135	1.008	0.0357	27.5982331
5 minutes	20.0	1.0105	1.005	0.0233	17.6708111
15 minutes	20.0	1.0095	1.004	0.0135	14.3616704
30 minutes	20.0	1.0090	1.004	0.0096	12.7071001
60 minutes	20.0	1.0080	1.003	0.0068	9.39795946
250 minutes	20.0	1.0065	1.001	0.0034	4.43424848
1440 minutes	20.0	1.0055	1.000	0.0014	1.12510782

USFAS 27725


6439961
Particle Size Distribution
Clay
Silt
Sand
Fine
Medium
Coarse
Gravel
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
Percent Passing
0.001
0.010
0.100
1.000
10.000
100.000
Particle Size (mm)

Lancaster Laboratories

#7103 Particle Size Distribution

Sample: 6439962 Date: 9/24/11 10/24/11 Init./Emp. #: DSS/237 Batch #: 112977103011

Pan Balance ID#: 9458

Sieve Size (Mr)	Tare + Sample Wt.	Tare Weight
3 Inch	539.12	539.12
1.5 Inch	559.62	559.62
0.75 Inch	556.48	556.48
#4	503.84	503.41
#6	431.10	431.02
#8	430.63	429.51
PAN	631.16	386.85

Time: 1300

Dried Organic Matter:

Odor:

Bottle code:

Prep. sple description:

Comments:

Sieve Size (Mr)	Tare + Sample Wt.	Tare Weight
#16	451.21	450.21
#30	295.44	291.44
#50	270.26	264.06
#100	236.93	229.46
#200	227.99	~~429~~ 220.99
PAN	389.96	386.84

DSS/237 10-27-11

Analytical Balance ID#: 16862

Moisture

Tare Weight	Sample Weight	Oven Dry Weight
1.0709	5.0043	5.8489

Bulk Density

Tare Weight	Sample Weight	DI H_2O + Sple Wt.
51.9109	15.0065	109.0130

Hydrometer Readings Sample Wt. 50.09 Hydrometer ID #: 372418

Time	Temp	Reading	Comments
2 minutes	20°	1.0115	
5 minutes	20°	1.010	
15 minutes	20°	1.009	
30 minutes	20°	1.0085	
60 minutes	20°	1.008	
250 minutes	20°	1.0065	
1440 minutes	20°	1.006	

Foam: —

Org. matter:

Oven ID#: 1171

Oven Temp In: 110°

Oven Temp Out: 111°

USF15 3797

Verified by: Michelle Sala Date: 10-28-11

Particle Size Distribution

Sample:	Date:	Init/Emp #
6439962	10/24/11	DSS/237

Percent Passing		Particle Size
100.00		75
100.00		37.5
100.00		19
99.83		4.75
99.79		3.35
99.34		2.36
97.26		1.18
88.95		0.6
76.07		0.3
60.56		0.15
46.02	*	0.075
21.93	*	0.03704
16.74	***	0.02369
13.28	**	0.01378
11.55	**	0.00985
9.82	**	0.00696
4.63	**	0.00347
2.91	**	0.00145

* Used for line 1
** Used for line 2
*** Used for lines 1 and 2
\+ Calculated from line 1
++ Calculated from line 2

Log(particle size)
-1.124939
-1.431325
-1.625485
-1.860899
-2.006779
-2.157292
-2.459674
-2.839883

Line 1 Regression Output:	
Constant	112.2906519
Std Err of Y Est	4.9960143
R Squared	0.9488741
No. of Observations	3
Degrees of Freedom	1
X Coefficient(s)	60.3072547
Std Err of Coef.	13.9986412

Line 2 Regression Output:	
Constant	35.3705685
Std Err of Y Est	1.0404447
R Squared	0.9685178
No. of Observations	6
Degrees of Freedom	4
X Coefficient(s)	11.8373106
Std Err of Coef.	1.0670917

Particle Size	Calculated		% Passing
0.064	41.5	+	40.29
0.05	32	+	33.83
0.02	16	++	15.26
0.005	6.5	++	8.13
0.002	3.5	++	3.42
0.001	2.5	++	-0.14

MH 11/24 10-28-11

DSS/237 6439962

Particle Size Distribution

Sample:	Date:	Init/Emp #
6439962	10/24/11	DSS/237

Sieve Size (Mr)	Tare + Smp. Wt.	Tare Weight	Diff. (Mr)	% Passing
3 inch	539.12	539.12	0.00	100
1.5 inch	559.62	559.62	0.00	100
0.75 inch	556.48	556.48	0.00	100
# 4	503.84	503.41	0.43	99.8251201
# 6	431.10	431.02	0.08	99.7925843
# 8	430.63	429.51	1.12	99.3370831
PAN	631.10	386.85	244.25	

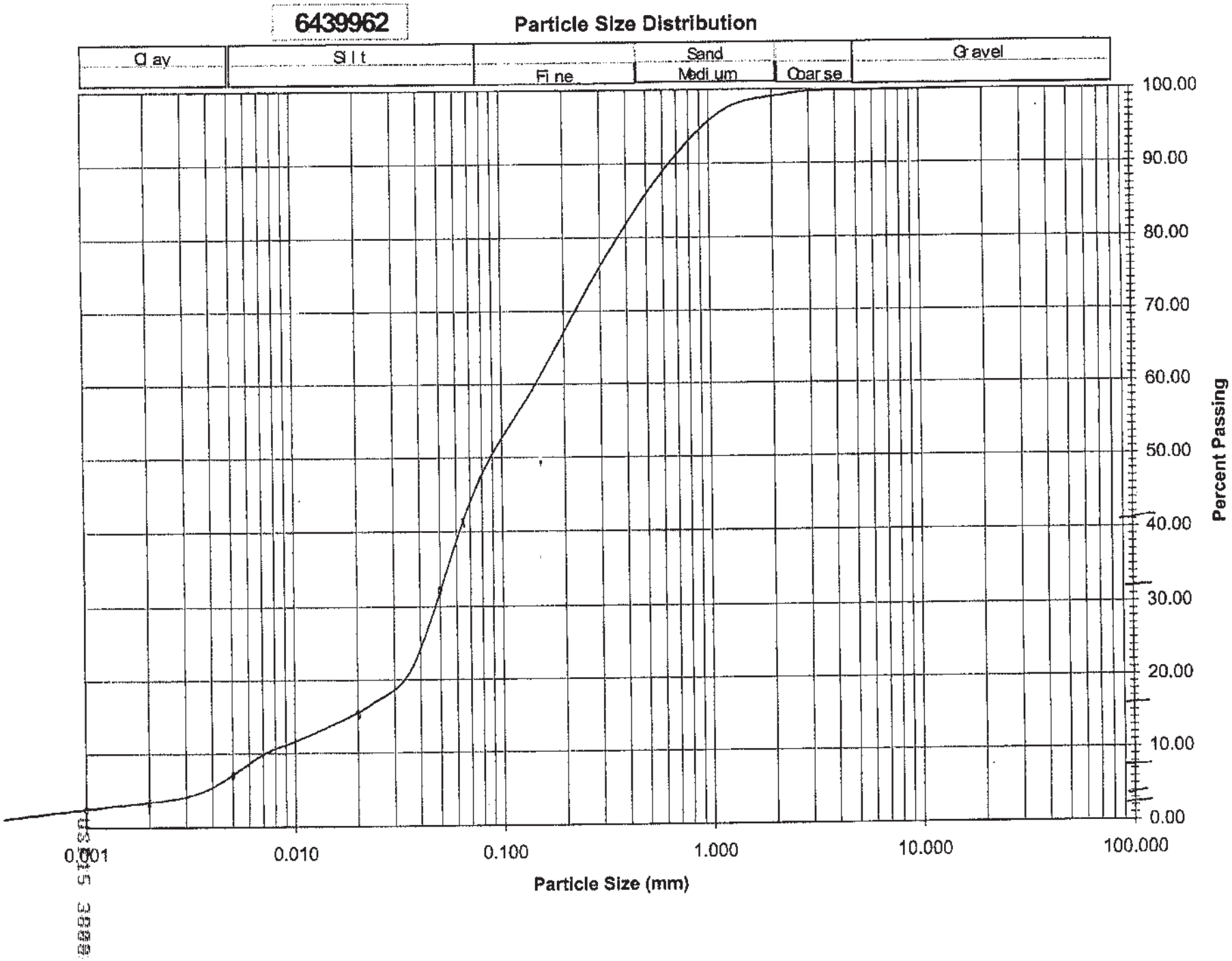
Sieve Size (Mr)	Tare + Smp. Wt.	Tare Weight	Diff. (Mr)	% Passing
# 16	451.21	450.21	1.00	97.2599823
# 30	295.44	291.44	4.00	88.9515793
# 50	270.26	264.06	6.20	76.0735546
# 100	236.93	229.46	7.47	60.557612
# 200	227.99	220.99	7.00	46.0179067
PAN	389.96	386.84	3.12	

Moisture Tare Weight	Sample Weight	Oven Dry Weight	Ratio
1.0709	5.0043	5.8489	0.9548

Bulk Density Tare Weight	Sample Weight	DI H2O + Smp. Wt.	Vol H2O	Vol Soil	Result
51.9109	15.0065	109.0130	94.0065	5.9935	2.5038

Hydrometer Readings Time	Sample Weight Temp	50.09 Reading	Hydrometer #: 372418 Corr. Rdng.	 Part. Size	 % Passing
2 minutes	20.0	1.0115	1.006	0.0370	21.9258714
5 minutes	20.0	1.0100	1.005	0.0237	16.7383624
15 minutes	20.0	1.0090	1.004	0.0138	13.2800231
30 minutes	20.0	1.0085	1.003	0.0098	11.5508534
60 minutes	20.0	1.0080	1.003	0.0070	9.82168372
250 minutes	20.0	1.0065	1.001	0.0035	4.63417471
1440 minutes	20.0	1.0060	1.001	0.0014	2.90500504

USF15.3799.


6439962
Particle Size Distribution
Clay
Silt
Sand
Fine
Medium
Coarse
Gravel
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
Percent Passing
0.001
0.010
0.100
1.000
10.000
100.000
Particle Size (mm)

Lancaster Laboratories

#7103 Particle Size Distribution

Sample: 6439963 Date: 10.25.11 Init./Emp. #: DSS/237 Batch #: 112987103O1A

Pan Balance ID#: 9458

Sieve Size (Mr)	Tare + Sample Wt.	Tare Weight
3 Inch	539.17	539.17
1.5 Inch	559.66	559.66
0.75 Inch	556.53	556.53
#4	534.80	503.46 stones
#6	438.22	431.01
#8	435.51	429.53
PAN	570.71	386.81

Time: 1500

Dried Organic Matter: _____

Odor: _____

Bottle code: _____

Prep. sple description: _____

Comments: _____

Sieve Size (Mr)	Tare + Sample Wt.	Tare Weight
#16	453.32	450.11
#30	296.92	291.42
#50	273.14	264.03
#100	237.60	229.45
#200	226.72	~~231~~ 220.99
PAN	388.03	386.81

DSS/237
① 11-30-11

Analytical Balance ID#: 16862

Moisture

Tare Weight	Sample Weight	Oven Dry Weight
1.0938	5.0042	5.9836

Bulk Density

Tare Weight	Sample Weight	DI H_2O + Sple Wt.
62.1939	15.4133	108.7975

Hydrometer Readings Sample Wt. 50.13 Hydrometer ID #: 372418

Time	Temp	Reading	Comments
2 minutes	20°	1.0105	
5 minutes	20°	1.009	
15 minutes	20°	1.0085	
30 minutes	20°	1008	
60 minutes	20°	1.0075	
250 minutes	20°	1.007	
1440 minutes	20°	1.006	

Foam: _____

Org. matter: _____

Oven ID#: 1171

Oven Temp In: _____

Oven Temp Out: 110°

USF15 3881

Verified by: mm 10/28 Date: 10-31-11

Particle Size Distribution

Sample:	Date:	Init/Emp #
6439963	10/25/11 15.00	DSS/237

Percent Passing		Particle Size
100.00		75
100.00		37.5
100.00		19
86.28		4.75
83.12		3.35
80.51		2.36
75.23		1.18
66.19		0.6
51.22		0.3
37.82		0.15
28.41	*	0.075
15.38	*	0.03968
11.06	***	0.02528
9.62	**	0.01475
8.18	**	0.01043
6.74	**	0.00743
5.30	**	0.00364
2.42	**	0.00153

* Used for line 1
** Used for line 2
*** Used for lines 1 and 2
\+ Calculated from line 1
++ Calculated from line 2

Log(particle size)
-1.124939
-1.401425
-1.597246
-1.831172
-1.981684
-2.129164
-2.439057
-2.814791

Line 1 Regression Output:	
Constant	69.7145094
Std Err of Y Est	2.3352530
R Squared	0.9665739
No. of Observations	3
Degrees of Freedom	1
X Coefficient(s)	37.4195367
Std Err of Coef.	6.9586258

Line 2 Regression Output:	
Constant	22.2924832
Std Err of Y Est	0.3171189
R Squared	0.9916830
No. of Observations	6
Degrees of Freedom	4
X Coefficient(s)	7.0700419
Std Err of Coef.	0.3237341

Particle Size	Calculated	% Passing
0.064	26 +	25.04
0.05	20 +	21.03
0.02	10 ++	10.28
0.005	6.5 ++	6.02
0.002	3.5 ++	3.21
0.001	1 ++	1.08

M16/1124 10/31/11

7000 STASS

Particle Size Distribution

Sample:	Date:	Init/Emp #
6439963	10/25/11 15.00	DSS/237

Sieve Size (Mr)	Tare + Smp. Wt.	Tare Weight	Diff. (Mr)	% Passing
3 inch	539.17	539.17	0.00	100
1.5 inch	559.66	559.66	0.00	100
0.75 inch	556.53	556.53	0.00	100
# 4	534.80	503.46	31.34	86.2802609
# 6	438.22	431.01	7.21	83.1239329
# 8	435.51	429.53	5.98	80.5060631
PAN	570.71	386.81	183.90	

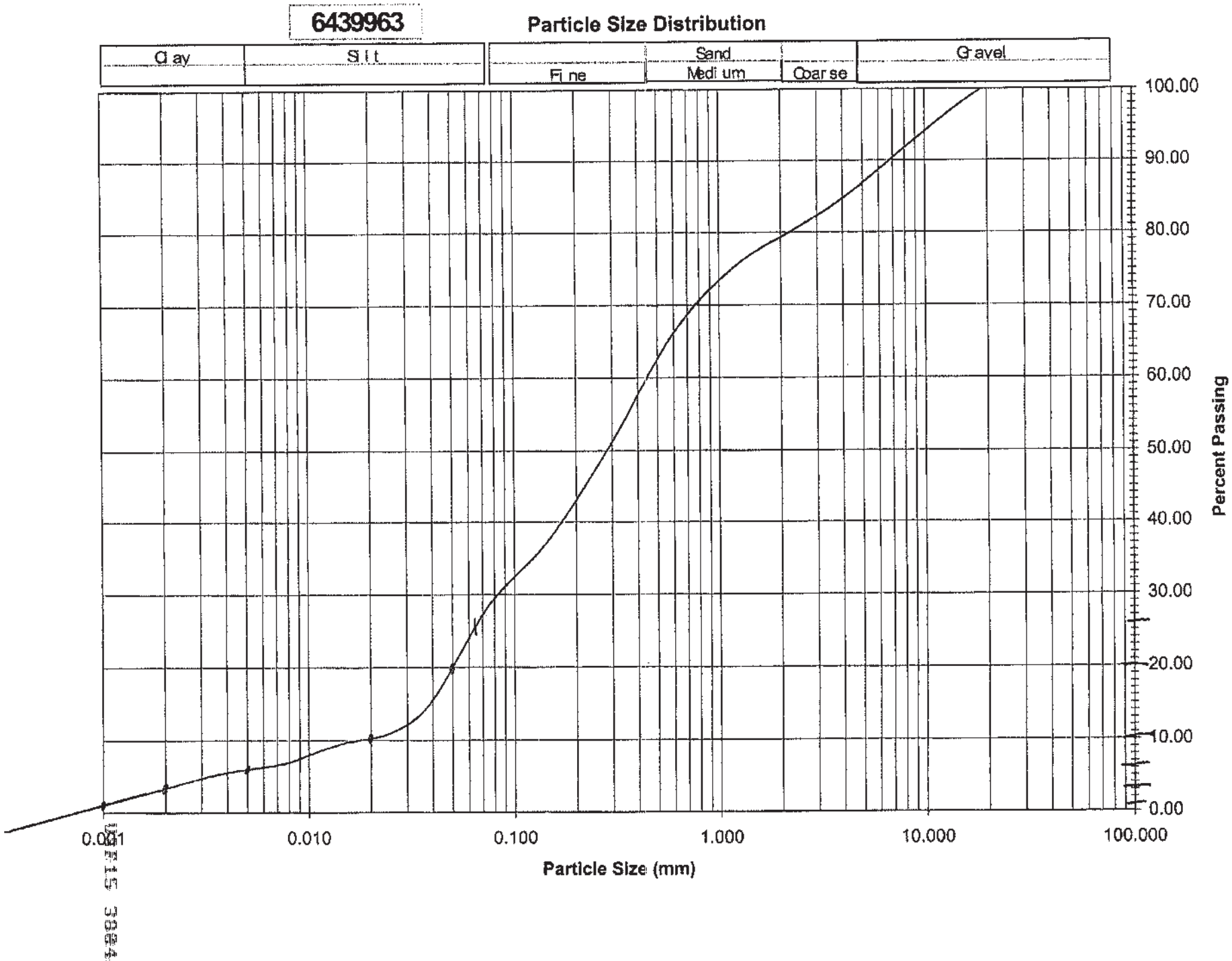
Sieve Size (Mr)	Tare + Smp. Wt.	Tare Weight	Diff. (Mr)	% Passing
# 16	453.32	450.11	3.21	75.2303706
# 30	296.92	291.42	5.50	66.1910219
# 50	273.14	264.03	9.11	51.2185736
# 100	237.60	229.45	8.15	37.8239024
# 200	226.72	220.99	5.73	28.4065446
PAN	388.03	386.81	1.22	

Moisture Tare Weight	Sample Weight	Oven Dry Weight	Ratio
1.0938	5.0042	5.9836	0.9771

Bulk Density Tare Weight	Sample Weight	DI H2O + Smp. Wt.	Vol H2O	Vol Soil	Result
62.1939	15.4133	108.7975	93.3842	6.6158	2.3298

Hydrometer Readings Time	Sample Weight Temp	50.13 Reading	Hydrometer #: 372418 Corr. Rdng.	 Part. Size	 % Passing
2 minutes	20.0	1.0105	1.005	0.0397	15.3763077
5 minutes	20.0	1.0090	1.004	0.0253	11.0571201
15 minutes	20.0	1.0085	1.003	0.0148	9.61739094
30 minutes	20.0	1.0080	1.003	0.0104	8.17766175
60 minutes	20.0	1.0075	1.002	0.0074	6.73793257
250 minutes	20.0	1.0070	1.002	0.0036	5.29820339
1440 minutes	20.0	1.0060	1.001	0.0015	2.41874503

USF15 3023


6439963
Particle Size Distribution
Clay
Silt
Sand
Fine
Medium
Coarse
Gravel
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
Percent Passing
0.001
0.010
0.100
1.000
10.000
100.000
Particle Size (mm)

Lancaster Laboratories

#7103 Particle Size Distribution

Sample: 6439964 Date: 9/24/11 (10) Init./Emp. #: DSS/237 Batch #: 112977103 01A

KAO/TST 10/28/11

Pan Balance ID#: 9458

Sieve Size (Mr)	Tare + Sample Wt.	Tare Weight
3 Inch	539.12	539.12
1.5 Inch	559.62	559.62
0.75 Inch	556.48	556.45
#4	516.46	503.41
#6	433.98	430.94
#8	436.99	429.48
PAN	620.82	386.84

Time: 1300

Dried Organic Matter: _____

Odor: stones

Bottle code: _____

Prep. sple description: _____

Comments: _____

Sieve Size (Mr)	Tare + Sample Wt.	Tare Weight
#16	450.81	450.19
#30	293.48	291.44
#50	268.93	264.05
#100	236.79	229.41
#200	228.36	221.01
PAN	390.04	386.83

Analytical Balance ID#: 16862

Moisture

Tare Weight	Sample Weight	Oven Dry Weight
1.1098	5.0016	5.9860

Bulk Density

Tare Weight	Sample Weight	DI H_2O + Sple Wt.
49.7291	15.0020	109.0416

Hydrometer Readings Sample Wt. 50.05 Hydrometer ID #: 322418

Time	Temp	Reading	Comments
2 minutes	20°	1.0155	
5 minutes	20°	1.0135	
15 minutes	20°	1.0125	
30 minutes	20°	1.012	
60 minutes	20°	1.0115	
250 minutes	20°	1.010	
1440 minutes	20°	1.009	

Foam: ~

Org. matter: _____

USF15 2085

Oven ID#: 1171

Oven Temp In: 110°

Oven Temp Out: 111°

Verified by: [signature] Date: 10-28-11

Particle Size Distribution

Sample:	Date:	Init/Emp #
6439964	10/24/11	DSS/237

Percent Passing		Particle Size
100.00		75
100.00		37.5
99.99		19
94.92		4.75
93.74		3.35
90.83		2.36
89.67		1.18
85.88		0.6
76.79		0.3
63.06		0.15
49.37	*	0.075
31.93	*	0.03548
25.76	***	0.02298
22.67	**	0.01337
21.12	**	0.00945
19.58	**	0.00676
14.95	**	0.00335
11.86	**	0.00141

* Used for line 1
** Used for line 2
*** Used for lines 1 and 2
\+ Calculated from line 1
++ Calculated from line 2

Log(particle size)
-1.124939
-1.450064
-1.638693
-1.873912
-2.024425
-2.170026
-2.475110
-2.852174

Line 1 Regression Output:	
Constant	101.4345005
Std Err of Y Est	2.0129674
R Squared	0.9864939
No. of Observations	3
Degrees of Freedom	1
X Coefficient(s)	46.8088637
Std Err of Coef.	5.4770460

Line 2 Regression Output:	
Constant	44.7124012
Std Err of Y Est	0.5122469
R Squared	0.9919728
No. of Observations	6
Degrees of Freedom	4
X Coefficient(s)	11.6872708
Std Err of Coef.	0.5256741

Particle Size	Calculated		% Passing
0.064	47	+	45.55
0.05	40	+	40.53
0.02	25	++	24.86
0.005	18	++	17.82
0.002	13	++	13.17
0.001	10.5	++	9.65

MB/1124 10-28-11

9885 SIJSH

Particle Size Distribution

Sample:	Date:	Init/Emp #
6439964	10/24/11	DSS/237

Sieve Size (Mr)	Tare + Smp. Wt.	Tare Weight	Diff. (Mr)	% Passing
3 inch	539.12	539.12	0.00	100
1.5 inch	559.62	559.62	0.00	100
0.75 inch	556.48	556.45	0.03	99.9883545
# 4	516.46	503.41	13.05	94.9225574
# 6	433.98	430.94	3.04	93.7424789
# 8	436.99	429.48	7.51	90.8272194
PAN	620.82	386.84	233.98	

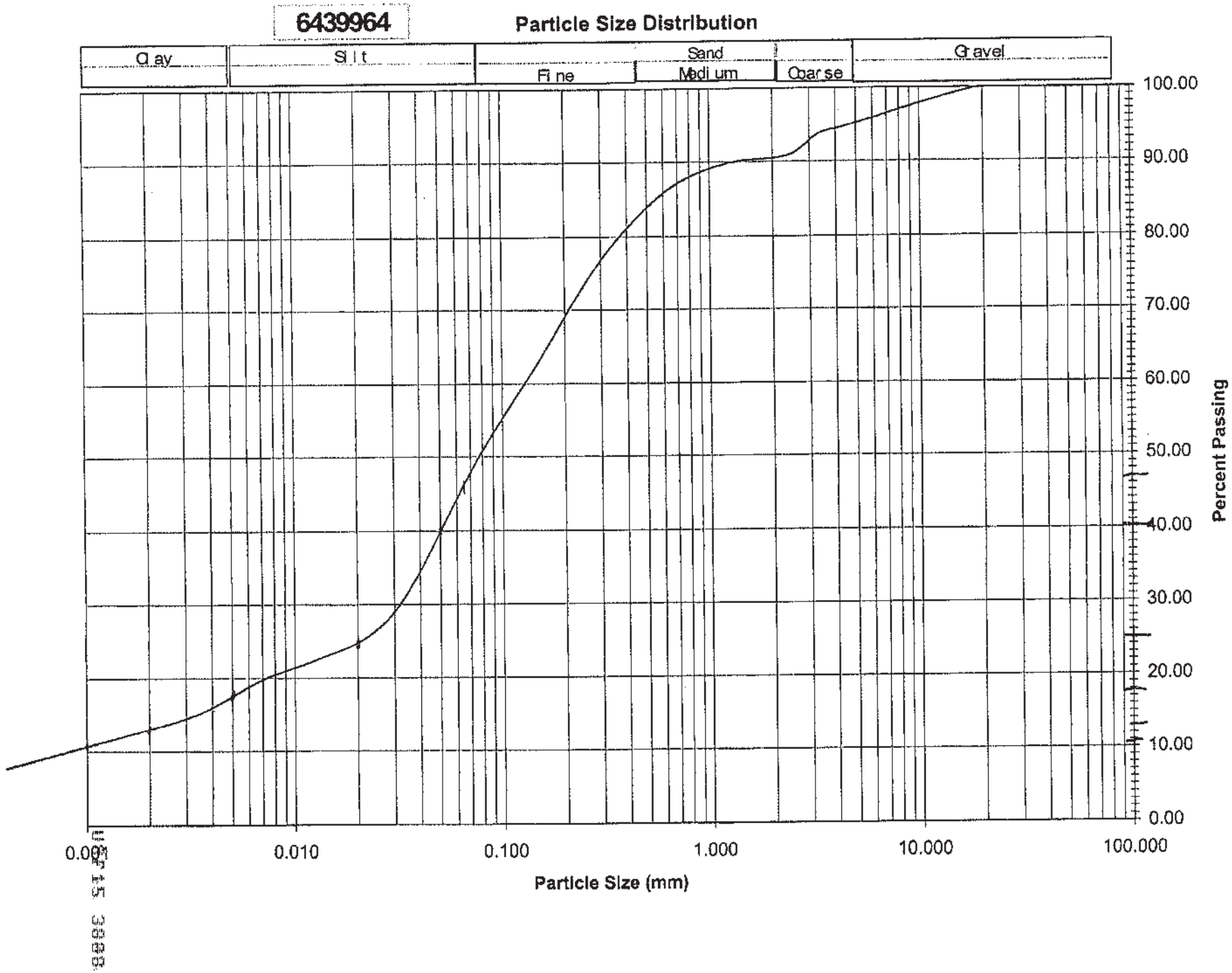
Sieve Size (Mr)	Tare + Smp. Wt.	Tare Weight	Diff. (Mr)	% Passing
# 16	450.81	450.19	0.62	89.6731523
# 30	293.48	291.44	2.04	85.8758992
# 50	268.93	264.05	4.88	76.792274
# 100	236.79	229.41	7.38	63.0551523
# 200	228.36	221.01	7.35	49.3738726
PAN	390.04	386.83	3.21	

Moisture Tare Weight	Sample Weight	Oven Dry Weight	Ratio
1.1098	5.0016	5.9860	0.9749

Bulk Density Tare Weight	Sample Weight	DI H2O + Smp. Wt.	Vol H2O	Vol Soil	Result
49.7291	15.0020	109.0418	94.0398	5.9602	2.5170

Hydrometer Readings Time	Sample Weight Temp	50.05 Reading	Hydrometer #: Corr. Rdng.	372418 Part. Size	% Passing
2 minutes	20.0	1.0155	1.010	0.0355	31.9340637
5 minutes	20.0	1.0135	1.008	0.0230	25.7572622
15 minutes	20.0	1.0125	1.007	0.0134	22.6688614
30 minutes	20.0	1.0120	1.007	0.0095	21.1246611
60 minutes	20.0	1.0115	1.006	0.0068	19.5804607
250 minutes	20.0	1.0100	1.005	0.0033	14.9478596
1440 minutes	20.0	1.0090	1.004	0.0014	11.8594588

USF 115 3667


6439964
Particle Size Distribution
Clay
Silt
Sand
Fine
Medium
Coarse
Gravel
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
Percent Passing
0.001
0.010
0.100
1.000
10.000
100.000
Particle Size (mm)

Lancaster Laboratories

#7103 Particle Size Distribution

Sample: 6439765 Date: 1025-11 Init./Emp. #: DSS/237 Batch #: 112987103011

Pan Balance ID#: 9458

Sieve Size (Mr)	Tare + Sample Wt.	Tare Weight
3 Inch	539.17	539.17
1.5 Inch	559.66	559.66
0.75 Inch	556.58	556.50
#4	512.55	503.97
#6	435.91	430.95
#8	436.52	429.51
PAN	607.17	386.84

stones

Time: 1500

Dried Organic Matter:

Odor:

Bottle code:

Prep. sple description:

Comments:

Sieve Size (Mr)	Tare + Sample Wt.	Tare Weight
#16	452.08	450.12
#30	295.69	291.43
#50	272.99	264.07
#100	238.71	229.50
#200	227.83	220.99
PAN	387.98	386.83

Analytical Balance ID#: 16862

Moisture

Tare Weight	Sample Weight	Oven Dry Weight
1.1000	5.0031	6.0300

Bulk Density

Tare Weight	Sample Weight	DI H_2O + Sple Wt.
59.4339	15.5401	109.5502

Hydrometer Readings Sample Wt. 50.12 Hydrometer ID #: 372418

Time	Temp	Reading	Comments
2 minutes	20°	1.0115	
5 minutes	20°	1.010	
15 minutes	20°	1.009	
30 minutes	20°	1.0085	
60 minutes	20°	1.008	
250 minutes	20°	1.007	
1440 minutes	20°	1.006	

Foam:

Org. matter:

USF15 3889

Oven ID#: 1171

Oven Temp In:

Oven Temp Out: 110°

Verified by: MW 1106 Date: 10-31-11

Particle Size Distribution

Sample:	Date:	Init/Emp #
6439965	10/25/11 15.00	DSS/237

Percent Passing		Particle Size
100.00		75
100.00		37.5
99.97		19
96.21		4.75
94.15		3.35
91.25		2.36
87.63		1.18
79.76		0.6
63.28		0.3
46.26		0.15
33.62	*	0.075
19.06	*	0.03642
14.55	***	0.02329
11.54	**	0.01355
10.04	**	0.00968
8.54	**	0.00685
5.53	**	0.00338
2.53	**	0.00142

* Used for line 1
** Used for line 2
*** Used for lines 1 and 2
\+ Calculated from line 1
++ Calculated from line 2

Log(particle size)
-1.124939
-1.438634
-1.632794
-1.868207
-2.014088
-2.164600
-2.471458
-2.847191

Line 1 Regression Output:	
Constant	76.1193424
Std Err of Y Est	2.2503899
R Squared	0.9745121
No. of Observations	3
Degrees of Freedom	1
X Coefficient(s)	38.3960646
Std Err of Coef.	6.2095442

Line 2 Regression Output:	
Constant	30.0223925
Std Err of Y Est	0.4121663
R Squared	0.9926354
No. of Observations	6
Degrees of Freedom	4
X Coefficient(s)	9.8013753
Std Err of Coef.	0.4221202

Particle Size	Calculated % Passing		
0.064	31	+	30.28
0.05	25	+	26.16
0.02	13.5	++	13.37
0.005	8	++	7.47
0.002	3	++	3.57
0.001	1	++	0.62

M16|1124 10|31|11

USF15 3646

Particle Size Distribution

Sample:	Date:	Init/Emp #
6439965	10/25/11 15.00	DSS/237

Sieve Size (Mr)	Tare + Smp. Wt.	Tare Weight	Diff. (Mr)	% Passing
3 inch	539.17	539.17	0.00	100
1.5 inch	559.66	559.66	0.00	100
0.75 inch	556.58	556.50	0.08	99.9668682
# 4	512.55	503.47	9.08	96.206411
# 6	435.91	430.95	4.96	94.1522405
# 8	436.52	429.51	7.01	91.2490682
PAN	607.17	386.84	220.33	

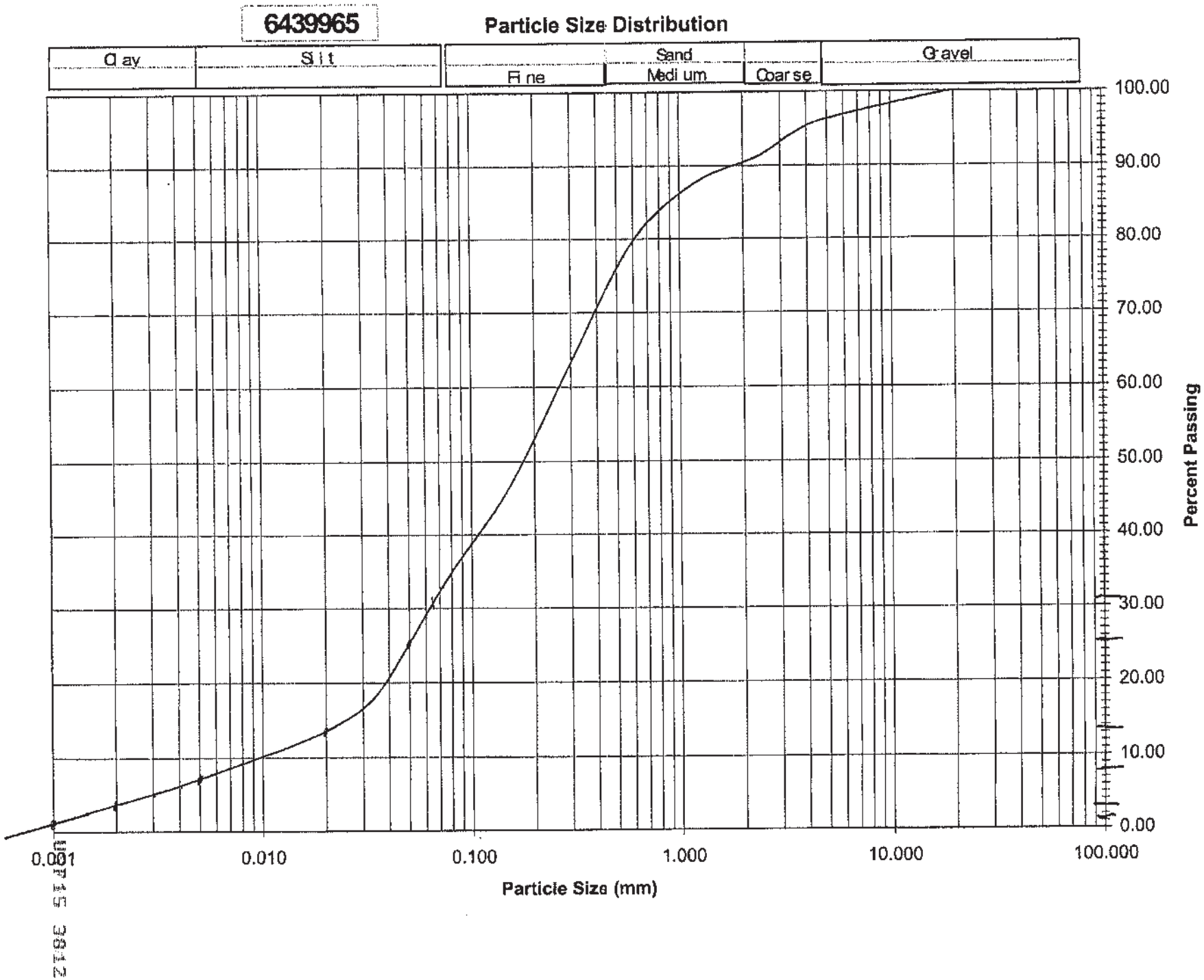
Sieve Size (Mr)	Tare + Smp. Wt.	Tare Weight	Diff. (Mr)	% Passing
# 16	452.08	450.12	1.96	87.6277581
# 30	295.69	291.43	4.26	79.7569515
# 50	272.99	264.07	8.92	63.2762955
# 100	238.71	229.50	9.21	46.2598335
# 200	227.83	220.99	6.84	33.6222004
PAN	387.98	386.83	1.15	

Moisture Tare Weight	Sample Weight	Oven Dry Weight	Ratio
1.1000	5.0031	6.0300	0.9854

Bulk Density Tare Weight	Sample Weight	DI H2O + Smp. Wt.	Vol H2O	Vol Soil	Result
59.4339	15.5401	109.5502	94.0101	5.9899	2.5944

Hydrometer Readings Time	Sample Weight Temp	50.12 Reading	Hydrometer #: 372418 Corr. Rdng.	 Part. Size	 % Passing
2 minutes	20.0	1.0115	1.006	0.0364	19.0607612
5 minutes	20.0	1.0100	1.005	0.0233	14.5511174
15 minutes	20.0	1.0090	1.004	0.0135	11.5446882
30 minutes	20.0	1.0085	1.003	0.0097	10.0414736
60 minutes	20.0	1.0080	1.003	0.0068	8.53825896
250 minutes	20.0	1.0070	1.002	0.0034	5.53182975
1440 minutes	20.0	1.0060	1.001	0.0014	2.52540054

USE 1 SIDE


6439965
Particle Size Distribution
Clay
Silt
Sand
Fine
Medium
Coarse
Gravel
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
Percent Passing
0.001
0.010
0.100
1.000
10.000
100.000
Particle Size (mm)

Lancaster Laboratories

#7103 Particle Size Distribution

Sample: 6439966 Date: ~~9/24/11~~ 10/24/11 ~~10/28/11~~ 10/28/11 Init./Emp. #: DSS/237 Batch #: 112977103011A

Pan Balance ID#: 9458

Sieve Size (Mr)	Tare + Sample Wt.	Tare Weight
3 Inch	539.12	539.12
1.5 Inch	559.62	559.62
0.75 Inch	556.45	556.45
#4	512.27	503.48
#6	439.12	430.92
#8	443.06	429.51
PAN	591.95	386.81

Time: 1300

Dried Organic Matter:

stones Odor:

Bottle code:

Prep. sple description:

Comments:

Sieve Size (Mr)	Tare + Sample Wt.	Tare Weight
#16	452.38	450.11
#30	294.65	291.40
#50	268.09	264.00
#100	234.00	229.41
#200	225.30	220.96
PAN	388.89	386.93

Analytical Balance ID#: 16862

Moisture

Tare Weight	Sample Weight	Oven Dry Weight
1.0533	5.0053	5.8777

Bulk Density

Tare Weight	Sample Weight	DI H_2O + Sple Wt.
59.2941	15.0007	109.1074

Hydrometer Readings Sample Wt. 50.17 Hydrometer ID #: 3724 N

Time	Temp	Reading
2 minutes	20°	1.0175
5 minutes	20°	~~1.0155~~ 1.016
15 minutes	20°	~~1.014~~ 1.0145
30 minutes	20°	1.0135
60 minutes	20°	1.0125
250 minutes	20°	1.0105
1440 minutes	20°	1.009

DSS/237 @ 10-26-11

Comments

Foam: —

Org. matter:

USP15 3813

Oven ID#: 1171

Oven Temp In: 110°

Oven Temp Out: 111°

Verified by: MM/10/26 Date: 10-26-11

Particle Size Distribution

Sample:	Date:	Init/Emp #
6439966	10/24/11	DSS/237

Percent Passing		Particle Size
100.00		75
100.00		37.5
100.00		19
96.27		4.75
92.79		3.35
87.04		2.36
82.96		1.18
77.11		0.6
69.83		0.3
61.57		0.15
53.76	*	0.075
36.58	*	0.03420
32.14	***	0.02190
27.69	**	0.01290
24.73	**	0.00923
21.76	**	0.00658
15.83	**	0.00330
11.38	**	0.00138

* Used for line 1
** Used for line 2
*** Used for lines 1 and 2
\+ Calculated from line 1
++ Calculated from line 2

Log(particle size)
-1.124939
-1.465974
-1.659490
-1.889260
-2.034666
-2.181839
-2.482009
-2.859071

Line 1 Regression Output:	
Constant	99.7433908
Std Err of Y Est	2.7257054
R Squared	0.9715080
No. of Observations	3
Degrees of Freedom	1
X Coefficient(s)	41.5836970
Std Err of Coef.	7.1213290

Line 2 Regression Output:	
Constant	60.8393361
Std Err of Y Est	0.8943991
R Squared	0.9890788
No. of Observations	6
Degrees of Freedom	4
X Coefficient(s)	17.6635092
Std Err of Coef.	0.9280387

Particle Size	Calculated	% Passing
0.064	51 +	50.10
0.05	45 +	45.64
0.02	31.5 ++	30.83
0.005	19 ++	20.20
0.002	13 ++	13.17
0.001	10 ++	7.85

MTG/1124 10/28/11

4.7GC 5T.ESM

Particle Size Distribution

Sample:	Date:	Init/Emp #
6439966	10/24/11	DSS/237

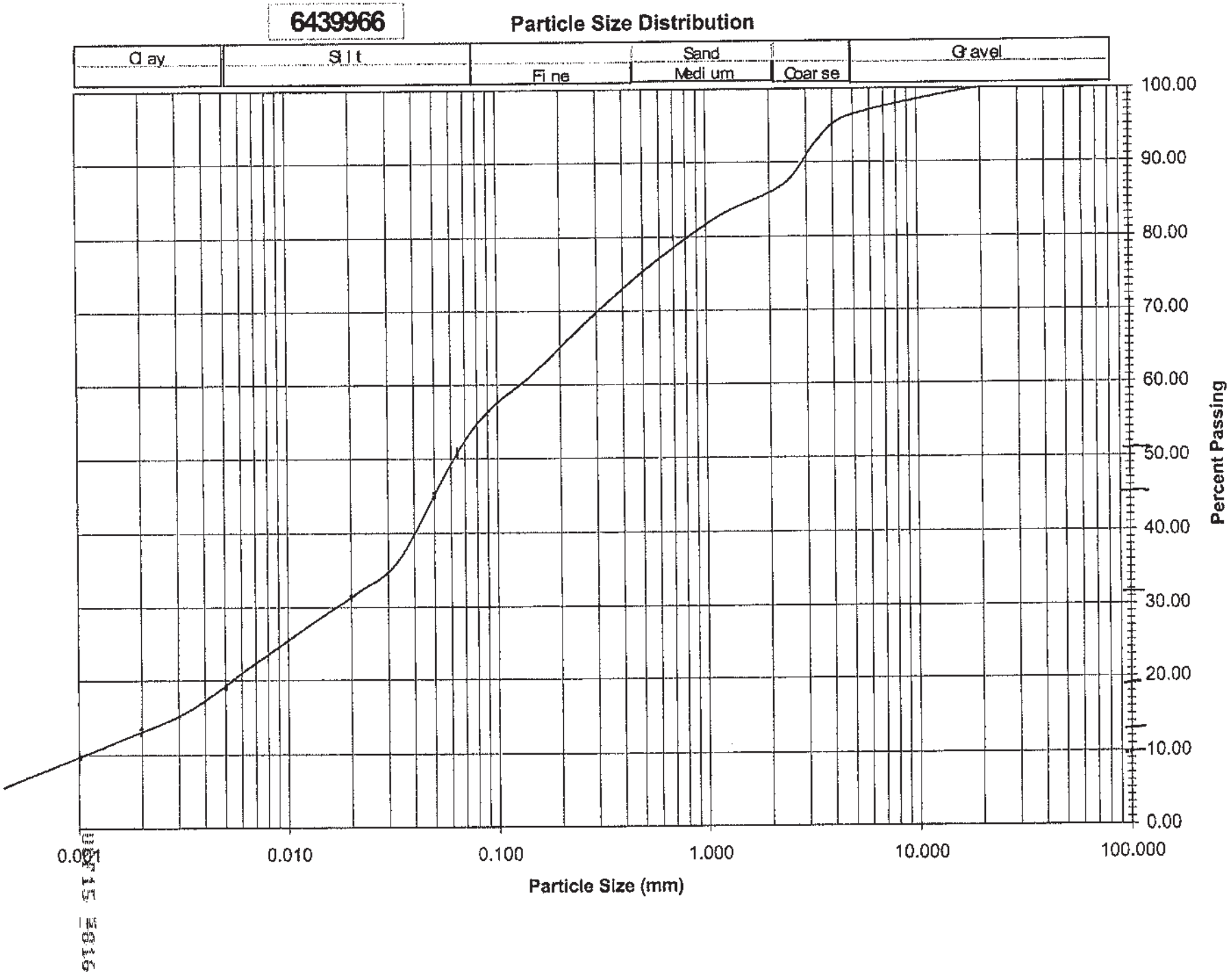
Sieve Size (Mr)	Tare + Smp. Wt.	Tare Weight	Diff. (Mr)	% Passing
3 inch	539.12	539.12	0.00	100
1.5 inch	559.62	559.62	0.00	100
0.75 inch	556.45	556.45	0.00	100
# 4	512.27	503.48	8.79	96.2703666
# 6	439.12	430.92	8.20	92.7910726
# 8	443.06	429.51	13.55	87.0417515
PAN	591.95	386.81	205.14	

Sieve Size (Mr)	Tare + Smp. Wt.	Tare Weight	Diff. (Mr)	% Passing
# 16	452.38	450.11	2.27	82.955772
# 30	294.65	291.40	3.25	77.1058014
# 50	268.04	264.00	4.04	69.8338379
# 100	234.00	229.41	4.59	61.5718794
# 200	225.30	220.96	4.34	53.7599186
PAN	388.89	386.83	2.06	

Moisture Tare Weight	Sample Weight	Oven Dry Weight	Ratio
1.0533	5.0053	5.8777	0.9639

Bulk Density Tare Weight	Sample Weight	DI H2O + Smp. Wt.	Vol H2O	Vol Soil	Result
59.2941	15.0007	109.1074	94.1067	5.8933	2.5454

Hydrometer Readings Time	Sample Weight Temp	50.17 Reading	Hydrometer #: Corr. Rdng.	372418 Part. Size	% Passing
2 minutes	20.0	1.0175	1.012	0.0342	36.5849612
5 minutes	20.0	1.0160	1.011	0.0219	32.1378427
15 minutes	20.0	1.0145	1.009	0.0129	27.6907243
30 minutes	20.0	1.0135	1.008	0.0092	24.7259786
60 minutes	20.0	1.0125	1.007	0.0066	21.761233
250 minutes	20.0	1.0105	1.005	0.0033	15.8317417
1440 minutes	20.0	1.0090	1.004	0.0014	11.3846233


6439966
Particle Size Distribution
Clay
Silt
Sand
Fine
Medium
Coarse
Gravel
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
Percent Passing
0.001
0.010
0.100
1.000
10.000
100.000
Particle Size (mm)

Lancaster Laboratories

#7103 Particle Size Distribution

Sample: 6439967 Date: 10.25.11 Init./Emp. #: DSS/237 Batch #: 112987103O1A

Pan Balance ID#: 9458

Sieve Size (Mr)	Tare + Sample Wt.	Tare Weight
3 Inch	539.17	539.17
1.5 Inch	559.66	559.66
0.75 Inch	556.61	556.50
#4	515.75	503.51
#6	439.91	430.99
#8	440.09	429.58
PAN	612.81	386.86

Time: 1500

Dried Organic Matter:

Odor: None

Bottle code:

Prep. sple description:

Comments:

Sieve Size (Mr)	Tare + Sample Wt.	Tare Weight
#16	453.22	450.14
#30	294.47	291.45
#50	268.23	264.11
#100	234.32	229.45
#200	225.92	220.94
PAN	387.96	386.81

Analytical Balance ID#: 16862

Moisture

Tare Weight	Sample Weight	Oven Dry Weight
1.0935	5.0050	5.9382

Bulk Density

Tare Weight	Sample Weight	DI H_2O + Sple Wt.
57.4229	15.1892	109.0344

Hydrometer Readings Sample Wt. 50.36 Hydrometer ID #: 372418

Time	Temp	Reading	Comments
2 minutes	20°	1.016	
5 minutes	20°	1.014	
15 minutes	20°	1.012	
30 minutes	20°	1.011	
60 minutes	20°	1.010	
250 minutes	20°	1.008	
1440 minutes	20	1.006	

Foam:

Org. matter:

Oven ID#: 117

Oven Temp In:

Oven Temp Out: 110°

USF15 3817

Verified by: [signature] Date: 10.26.11

Particle Size Distribution

Sample:	Date:	Init/Emp #
6439967	10/25/11 15.00	DSS/237

Percent Passing		Particle Size
100.00		75
100.00		37.5
99.96		19
95.21		4.75
91.75		3.35
87.67		2.36
82.12		1.18
76.69		0.6
69.27		0.3
60.50		0.15
51.53	*	0.075
32.82	*	0.03580
26.76	***	0.02311
20.71	**	0.01360
17.68	**	0.00973
14.65	**	0.00695
8.60	**	0.00347
2.54	**	0.00147

* Used for line 1
** Used for line 2
*** Used for lines 1 and 2
\+ Calculated from line 1
++ Calculated from line 2

Log(particle size)
-1.124939
-1.446110
-1.636288
-1.866398
-2.011996
-2.157703
-2.459814
-2.832510

Line 1 Regression Output:	
Constant	106.4190588
Std Err of Y Est	2.5505825
R Squared	0.9804932
No. of Observations	3
Degrees of Freedom	1
X Coefficient(s)	49.4728891
Std Err of Coef.	6.9781175

Line 2 Regression Output:	
Constant	58.4602339
Std Err of Y Est	0.8498831
R Squared	0.9922793
No. of Observations	6
Degrees of Freedom	4
X Coefficient(s)	20.0407130
Std Err of Coef.	0.8838852

Particle Size	Calculated	% Passing
0.064	48 +	47.36
0.05	42 +	42.05
0.02	25 ++	24.41
0.005	12 ++	12.35
0.002	5 ++	4.37
0.001	0 ++	-1.66

mlg|1124 10|31|11

9105 SIESS

Particle Size Distribution

Sample:	Date:	Init/Emp #
6439967	10/25/11 15.00	DSS/237

Sieve Size (Mr)	Tare + Smp. Wt.	Tare Weight	Diff. (Mr)	% Passing
3 inch	539.17	539.17	0.00	100
1.5 inch	559.66	559.66	0.00	100
0.75 inch	556.61	556.50	0.11	99.9573197
# 4	515.75	503.51	12.24	95.2081636
# 6	439.91	430.99	8.92	91.7471773
# 8	440.09	429.58	10.51	87.6692663
PAN	612.81	386.86	225.95	

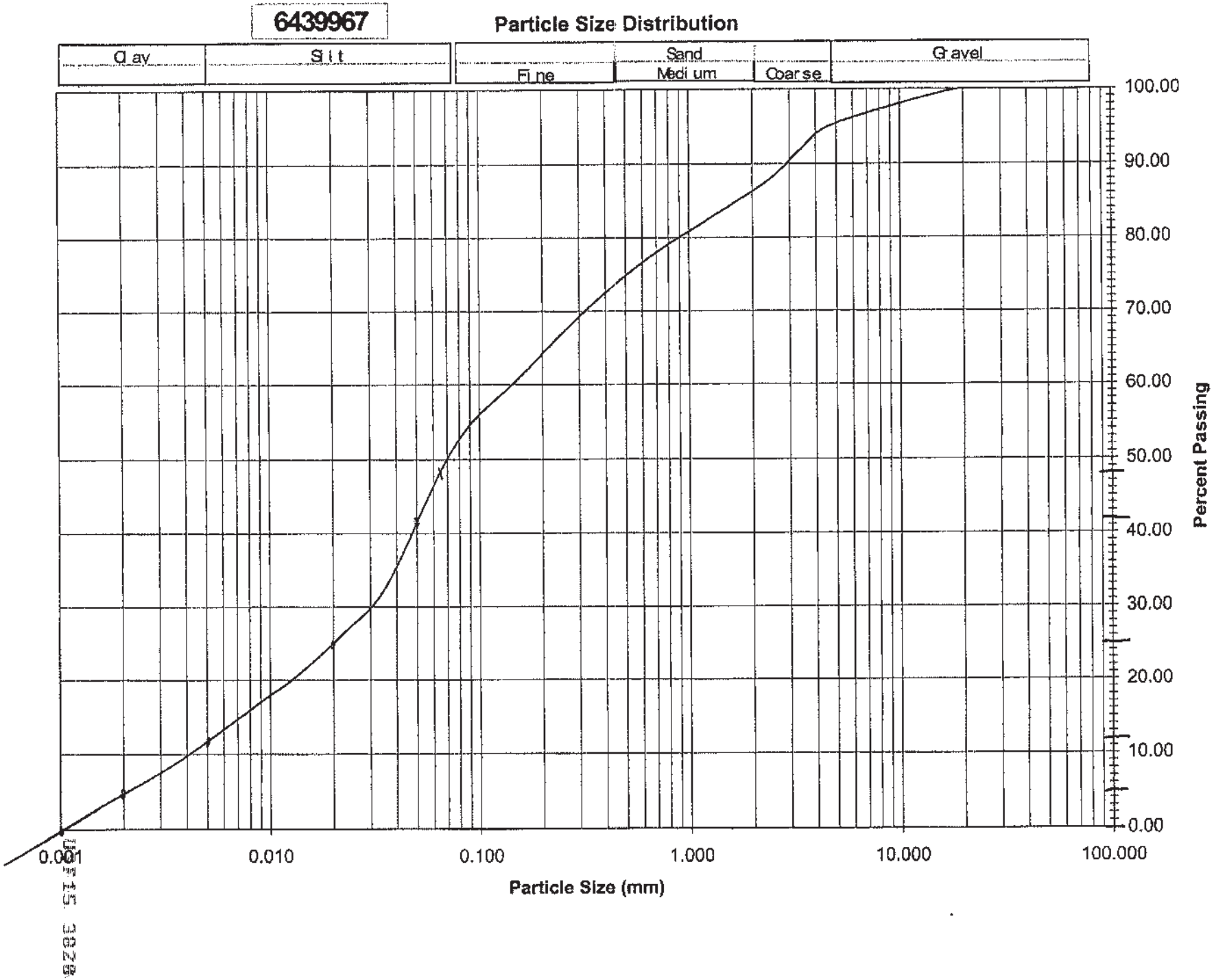
Sieve Size (Mr)	Tare + Smp. Wt.	Tare Weight	Diff. (Mr)	% Passing
# 16	453.22	450.14	3.08	82.1234268
# 30	294.47	291.45	3.02	76.6856231
# 50	268.23	264.11	4.12	69.2671625
# 100	234.32	229.45	4.87	60.498254
# 200	225.92	220.94	4.98	51.5312797
PAN	387.96	386.81	1.15	

Moisture Tare Weight	Sample Weight	Oven Dry Weight	Ratio
1.0935	5.0050	5.9382	0.9680

Bulk Density Tare Weight	Sample Weight	DI H2O + Smp. Wt.	Vol H2O	Vol Soil	Result
57.4229	15.1892	109.0344	93.8452	6.1548	2.4679

Hydrometer Readings	Sample Weight	50.30	Hydrometer #:	372418	
Time	Temp	Reading	Corr. Rdng.	Part. Size	% Passing
2 minutes	20.0	1.0160	1.011	0.0358	32.815683
5 minutes	20.0	1.0140	1.009	0.0231	26.7611289
15 minutes	20.0	1.0120	1.007	0.0136	20.7065749
30 minutes	20.0	1.0110	1.006	0.0097	17.6792978
60 minutes	20.0	1.0100	1.005	0.0070	14.6520208
250 minutes	20.0	1.0080	1.003	0.0035	8.59746675
1440 minutes	20.0	1.0060	1.001	0.0015	2.5429127

6439967 SIEVE


6439967
Particle Size Distribution
Clay
Silt
Sand
Fine
Medium
Coarse
Gravel
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
Percent Passing
0.001
0.010
0.100
1.000
10.000
100.000
Particle Size (mm)

Lancaster Laboratories

#7103 Particle Size Distribution

Sample: 6439968 Date: 1025.11 Init./Emp. #: DSS/237 Batch #: 112K1030M

Pan Balance ID#: 9458

Sieve Size (Mr)	Tare + Sample Wt.	Tare Weight
3 Inch	539.17	539.17
1.5 Inch	559.66	559.66
0.75 Inch	572.41	556.51
#4	548.71	503.41
#6	442.27	431.01
#8	441.85	429.60
PAN	614.75	386.90

rocks

Time: 1505

Dried Organic Matter:

Odor:

Bottle code:

Prep. sple description:

Comments:

Sieve Size (Mr)	Tare + Sample Wt.	Tare Weight
#16	453.03	450.15
#30	295.19	291.48
#50	267.53	264.06
#100	233.13	229.45
#200	226.69	220.96
PAN	388.25	386.82

Analytical Balance ID#: 16862

Moisture

Tare Weight	Sample Weight	Oven Dry Weight
1.0781	5.0021	5.9928

Bulk Density

Tare Weight	Sample Weight	DI H_2O + Sple Wt.
58.2325	15.3297	109.0075

Hydrometer Readings Sample Wt. 50.06 Hydrometer ID #: 372418

Time	Temp	Reading	Comments
2 minutes	20°	1.0155	
5 minutes	20°	1.0135	
15 minutes	20°	1.0115	
30 minutes	20°	1.0105	
60 minutes	20°	1.0095	
250 minutes	20°	1.008	
1440 minutes	20°	1.0065	

Foam:

Org. matter:

USP15 3821

Oven ID#: 1171

Oven Temp In:

Oven Temp Out: 110°

Verified by: mj 1102 Date: 10-31-11

Particle Size Distribution

Sample:	Date:	Init/Emp #
6439968	10/25/11 15.00	DSS/237

Percent Passing		Particle Size
100.00		75
100.00		37.5
94.91		19
80.42		4.75
76.82		3.35
72.90		2.36
68.63		1.18
63.13		0.6
57.99		0.3
52.53		0.15
44.04	*	0.075
26.08	*	0.03642
21.04	***	0.02359
15.99	**	0.01388
13.47	**	0.00992
10.95	**	0.00707
7.16	**	0.00350
3.38	**	0.00148

* Used for line 1
** Used for line 2
*** Used for lines 1 and 2
\+ Calculated from line 1
++ Calculated from line 2

Log(particle size)
-1.124939
-1.438652
-1.627280
-1.857583
-2.003291
-2.150658
-2.455914
-2.828613

Line 1 Regression Output:	
Constant	95.9853664
Std Err of Y Est	2.9042157
R Squared	0.9711553
No. of Observations	3
Degrees of Freedom	1
X Coefficient(s)	46.9584473
Std Err of Coef.	8.0928676

Line 2 Regression Output:	
Constant	42.9743657
Std Err of Y Est	1.1536854
R Squared	0.9731870
No. of Observations	6
Degrees of Freedom	4
X Coefficient(s)	14.3815497
Std Err of Coef.	1.1935761

Particle Size	Calculated % Passing	
0.064	41.5 +	39.93
0.05	35 +	34.89
0.02	19.5 ++	18.54
0.005	9 ++	9.88
0.002	5 ++	4.16
0.001	1.5 ++	-0.17

MG/1174 10/31/11

2284 USEL 15 1550

Particle Size Distribution

Sample:	Date:	Init/Emp #
6439968	10/25/11 15.00	DSS/237

Sieve Size (Mr)	Tare + Smp. Wt.	Tare Weight	Diff. (Mr)	% Passing
3 inch	539.17	539.17	0.00	100
1.5 inch	559.66	559.66	0.00	100
0.75 inch	572.41	556.51	15.90	94.9129767
# 4	548.71	503.41	45.30	80.4197594
# 6	442.27	431.01	11.26	76.8172511
# 8	441.85	429.60	12.25	72.8980036
PAN	614.75	386.90	227.85	

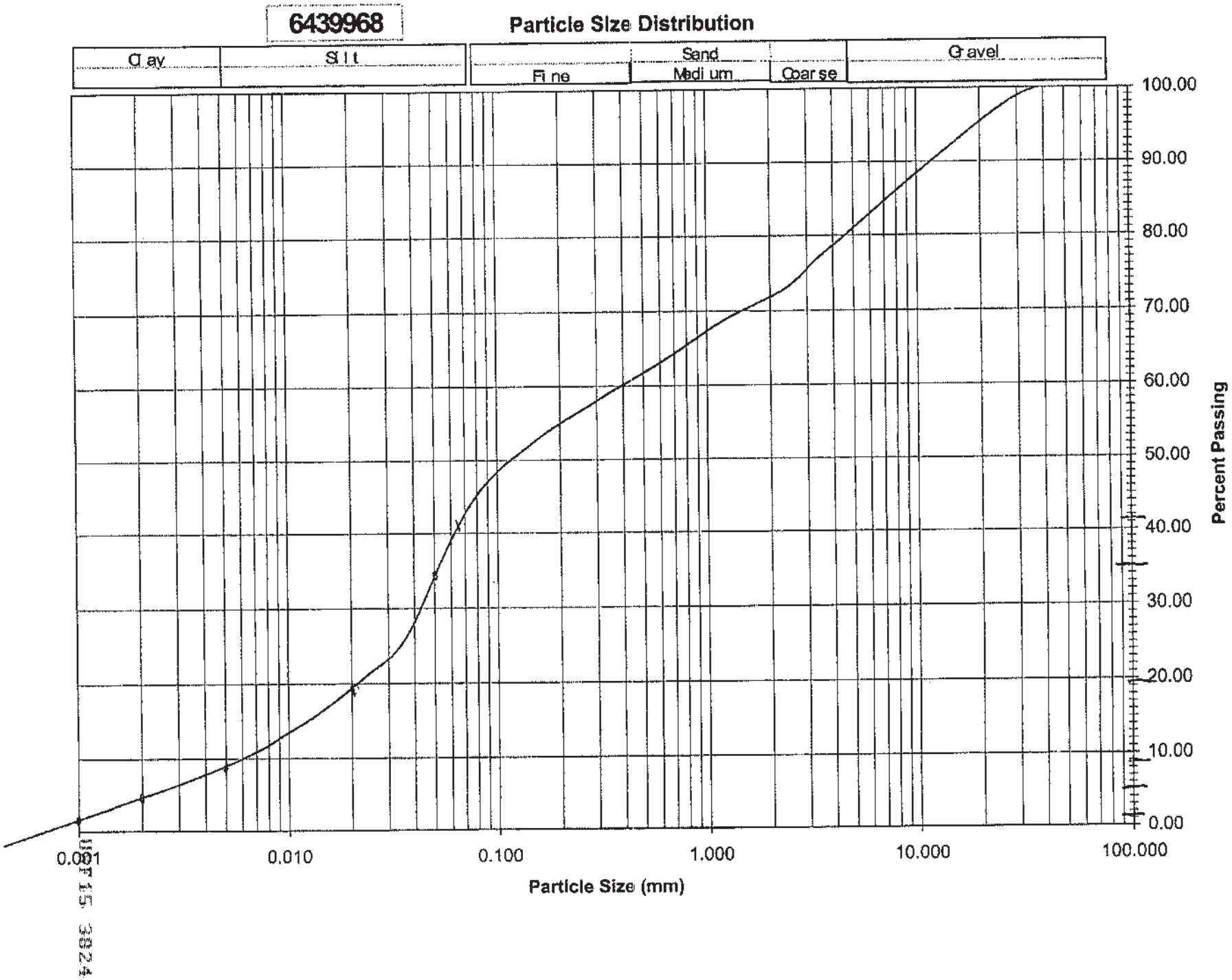
Sieve Size (Mr)	Tare + Smp. Wt.	Tare Weight	Diff. (Mr)	% Passing
# 16	453.03	450.15	2.88	68.6295296
# 30	295.19	291.48	3.71	63.1309052
# 50	267.53	264.06	3.47	57.987987
# 100	233.13	229.45	3.68	52.5338258
# 200	226.69	220.96	5.73	44.0413412
PAN	388.25	386082.00	-385693.75	

Moisture Tare Weight	Sample Weight	Oven Dry Weight	Ratio
1.0781	5.0021	5.9928	0.9825

Bulk Density Tare Weight	Sample Weight	DI H2O + Smp. Wt.	Vol H2O	Vol Soil	Result
58.2325	15.3297	109.0075	93.6778	6.3222	2.4247

Hydrometer Readings	Sample Weight	50.06	Hydrometer #:	372418	
Time	Temp	Reading	Corr. Rdng.	Part. Size	% Passing
2 minutes	20.0	1.0155	1.010	0.0364	26.0813502
5 minutes	20.0	1.0135	1.008	0.0236	21.0366016
15 minutes	20.0	1.0115	1.006	0.0139	15.991853
30 minutes	20.0	1.0105	1.005	0.0099	13.4694787
60 minutes	20.0	1.0095	1.004	0.0071	10.9471044
250 minutes	20.0	1.0080	1.003	0.0035	7.16354298
1440 minutes	20.0	1.0065	1.001	0.0015	3.37998155

ESTES 3623


6439968
Particle Size Distribution
Clay
Silt
Sand
Fine
Medium
Coarse
Gravel
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
Percent Passing
0.001
0.010
0.100
1.000
10.000
100.000
Particle Size (mm)

Lancaster Laboratories

#7103 Particle Size Distribution

Sample: 6439769 Date: 10/24/11 Init./Emp. #: DSS/237 Batch #: 112977103 01A

Pan Balance ID#: 9458

Sieve Size (Mr)	Tare + Sample Wt.	Tare Weight
3 Inch	539.12	539.12
1.5 Inch	559.62	559.62
0.75 Inch	556.52	556.45
#4	506.69	503.48
#6	435.13	430.95
#8	441.21	429.53
PAN	631.57	386.84

Time: 1300

Dried Organic Matter: ____

Odor: ____

Bottle code: ____

Prep. sple description: ____

Comments: ____

Sieve Size (Mr)	Tare + Sample Wt.	Tare Weight
#16	451.85	450.19
#30	294.59	291.46
#50	268.19	264.04
#100	233.15	229.51
#200	225.99	220.97
PAN	389.25	386.80

Analytical Balance ID#: 16862

Moisture

Tare Weight	Sample Weight	Oven Dry Weight
1.0581	5.0037	5.9841

Bulk Density

Tare Weight	Sample Weight	DI H_2O + Sple Wt.
67.2123	15.0084	109.0004

Hydrometer Readings Sample Wt 50.14 Hydrometer ID #: 372478

Time	Temp	Reading	
2 minutes	20°	1.017	
5 minutes	20°	1.015	
15 minutes	20°	1.0135	
30 minutes	20°	1.012	
60 minutes	20°	1.0115	Comments
250 minutes	20°	1.0095	
1440 minutes	20°	1.0085	

Foam: —

Org. matter: ____

USP15 3825

Oven ID#: 1171

Oven Temp In: 110°

Oven Temp Out: 111°

Verified by: [signature] Date: 10/25/11

Particle Size Distribution

Sample:	Date:	Init/Emp #
6439969	10/24/11	DSS/237

Percent Passing		Particle Size
100.00		75
100.00		37.5
99.97		19
98.76		4.75
97.17		3.35
92.75		2.36
89.63		1.18
83.75		0.6
75.95		0.3
69.11		0.15
59.68	*	0.075
37.10	*	0.03476
30.83	***	0.02244
26.13	**	0.01327
21.43	**	0.00946
19.86	**	0.00676
13.60	**	0.00337
10.46	**	0.00142

* Used for line 1
** Used for line 2
*** Used for lines 1 and 2
\+ Calculated from line 1
++ Calculated from line 2

Log(particle size)
-1.124939
-1.458934
-1.648893
-1.877114
-2.024285
-2.169886
-2.471825
-2.847400

Line 1 Regression Output:	
Constant	122.2331247
Std Err of Y Est	3.3805390
R Squared	0.9751800
No. of Observations	3
Degrees of Freedom	1
X Coefficient(s)	56.4867477
Std Err of Coef.	9.0116721

Line 2 Regression Output:	
Constant	57.9462559
Std Err of Y Est	1.6295129
R Squared	0.9631150
No. of Observations	6
Degrees of Freedom	4
X Coefficient(s)	17.2829277
Std Err of Coef.	1.6911145

Particle Size	Calculated	% Passing
0.064 57	+	54.80
0.05 48	+	48.74
0.02 39.5	++	28.58
0.005 17	++	18.18
0.002 12	++	11.30
0.001 10	++	6.10

MG 1124 10/28/11

9285 SI 1SN

Particle Size Distribution

Sample:	Date:	Init/Emp #
6439969	10/24/11	DSS/237

Sieve Size (Mr)	Tare + Smp. Wt.	Tare Weight	Diff. (Mr)	% Passing
3 inch	539.12	539.12	0.00	100
1.5 inch	559.62	559.62	0.00	100
0.75 inch	556.52	556.45	0.07	99.9734718
# 4	506.69	503.48	3.21	98.7569637
# 6	435.13	430.95	4.18	97.1728503
# 8	441.21	429.53	11.68	92.7464282
PAN	631.57	386.84	244.73	

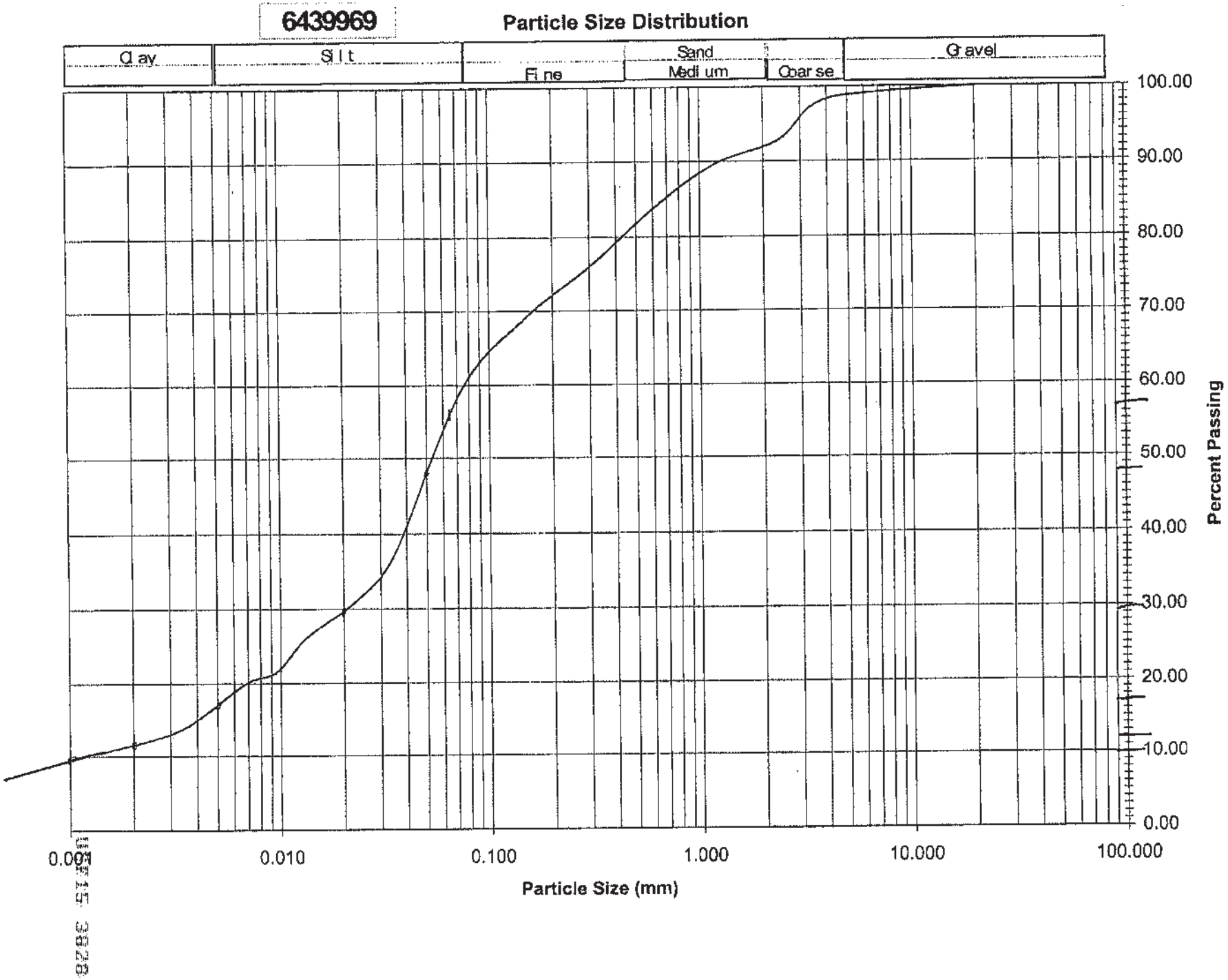
Sieve Size (Mr)	Tare + Smp. Wt.	Tare Weight	Diff. (Mr)	% Passing
# 16	451.85	450.19	1.66	89.6274107
# 30	294.59	291.46	3.13	83.7463717
# 50	268.19	264.04	4.15	75.9488281
# 100	233.15	229.51	3.64	69.1095367
# 200	225.99	220.97	5.02	59.6773273
PAN	389.25	386.80	2.45	

Moisture Tare Weight	Sample Weight	Oven Dry Weight	Ratio
1.0581	5.0037	5.9841	0.9845

Bulk Density Tare Weight	Sample Weight	DI H2O + Smp. Wt.	Vol H2O	Vol Soil	Result
67.2123	15.0084	109.0004	93.9920	6.0080	2.4981

Hydrometer Readings Time	Sample Weight Temp	50.14 Reading	Hydrometer #: Corr. Rdng.	372418 Part. Size	% Passing
2 minutes	20.0	1.0170	1.012	0.0348	37.0965914
5 minutes	20.0	1.0150	1.010	0.0224	30.8302753
15 minutes	20.0	1.0135	1.008	0.0133	26.1305382
30 minutes	20.0	1.0120	1.007	0.0095	21.4308011
60 minutes	20.0	1.0115	1.006	0.0068	19.8642221
250 minutes	20.0	1.0095	1.004	0.0034	13.597906
1440 minutes	20.0	1.0085	1.003	0.0014	10.4647479

3296 GTESH


6439969
Particle Size Distribution
Clay
Silt
Sand
Fine
Medium
Coarse
Gravel
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
Percent Passing
0.001
0.010
0.100
1.000
10.000
100.000
Particle Size (mm)

Lancaster Laboratories

#7103 Particle Size Distribution

Sample: 6439970 Date: 10.25.11 Init./Emp. #: DSS/237 Batch #: 112987103010

Pan Balance ID#: 9453

Sieve Size (Mr)	Tare + Sample Wt.	Tare Weight
3 Inch	539.17	539.17
1.5 Inch	559.66	559.66
0.75 Inch	556.59	556.51
#4	505.50	503.49
#6	433.91	430.97
#8	439.55	429.48
PAN	662.85	384.88

Time: 1500

Dried Organic Matter:

Odor:

Bottle code: 738

Prep. sple description:

Sieve Size (Mr)	Tare + Sample Wt.	Tare Weight
#16	452.40	450.13
#30	295.41	291.45
#50	268.53	264.12
#100	233.42	229.96
#200	224.80	220.98
PAN	388.61	384.88

Comments:

Analytical Balance ID#: 16862

Moisture

Tare Weight	Sample Weight	Oven Dry Weight
1.0835	5.0079	5.9589

Bulk Density

Tare Weight	Sample Weight	DI H_2O + Sple Wt.
Lot. 1214	15.3341	108.8100

Hydrometer Readings Sample Wt. 50.21 Hydrometer ID #: 37248

Time	Temp	Reading	Comments
2 minutes	20°	1.0145	
5 minutes	20°	1.015	
15 minutes	20°	1.0135	
30 minutes	20°	1.012	
60 minutes	20°	1.011	
250 minutes	20°	1.009	
1440 minutes	20°	1.007	

Foam:

Org. matter:

USF15 3829

Oven ID#: 1171

Oven Temp In:

Oven Temp Out: 110°

Verified by: [illegible] Date: 10.31.11

Particle Size Distribution

Sample:	Date:	Init/Emp #
6439970	10/25/11 15.00	DSS/237

Percent Passing		Particle Size
100.00		75
100.00		37.5
99.97		19
99.28		4.75
98.27		3.35
94.81		2.36
90.41		1.18
82.73		0.6
74.17		0.3
67.46		0.15
59.94	*	0.075
38.28	*	0.03704
33.22	***	0.02362
28.16	**	0.01396
23.09	**	0.00995
19.72	**	0.00712
12.96	**	0.00355
6.21	**	0.00151

* Used for line 1
** Used for line 2
*** Used for lines 1 and 2
\+ Calculated from line 1
++ Calculated from line 2

Log(particle size)
-1.124939
-1.431355
-1.626762
-1.854983
-2.002154
-2.147753
-2.449692
-2.822230

Line 1 Regression Output:	
Constant	120.2041108
Std Err of Y Est	4.3247964
R Squared	0.9535644
No. of Observations	3
Degrees of Freedom	1
X Coefficient(s)	54.7855755
Std Err of Coef.	12.0897280

Line 2 Regression Output:	
Constant	69.7871147
Std Err of Y Est	1.0399795
R Squared	0.9911468
No. of Observations	6
Degrees of Freedom	4
X Coefficient(s)	22.8900757
Std Err of Coef.	1.0816804

Particle Size	Calculated	% Passing
0.064	56 +	54.80
0.05	47 +	48.93
0.02	31 ++	30.90
0.005	17 ++	17.12
0.002	8.5 ++	8.01
0.001	2.5 ++	1.12

M16/1124 10/31/11

RECEIVED 11:35

Particle Size Distribution

Sample:	Date:	Init/Emp #
6439970	10/25/11 15.00	DSS/237

Sieve Size (Mr)	Tare + Smp. Wt.	Tare Weight	Diff. (Mr)	% Passing
3 inch	539.17	539.17	0.00	100
1.5 inch	559.66	559.66	0.00	100
0.75 inch	556.59	556.51	0.08	99.9725152
# 4	505.50	503.49	2.01	99.2819597
# 6	433.91	430.97	2.94	98.2718934
# 8	439.55	429.48	10.07	94.8122445
PAN	662.85	386.88	275.97	

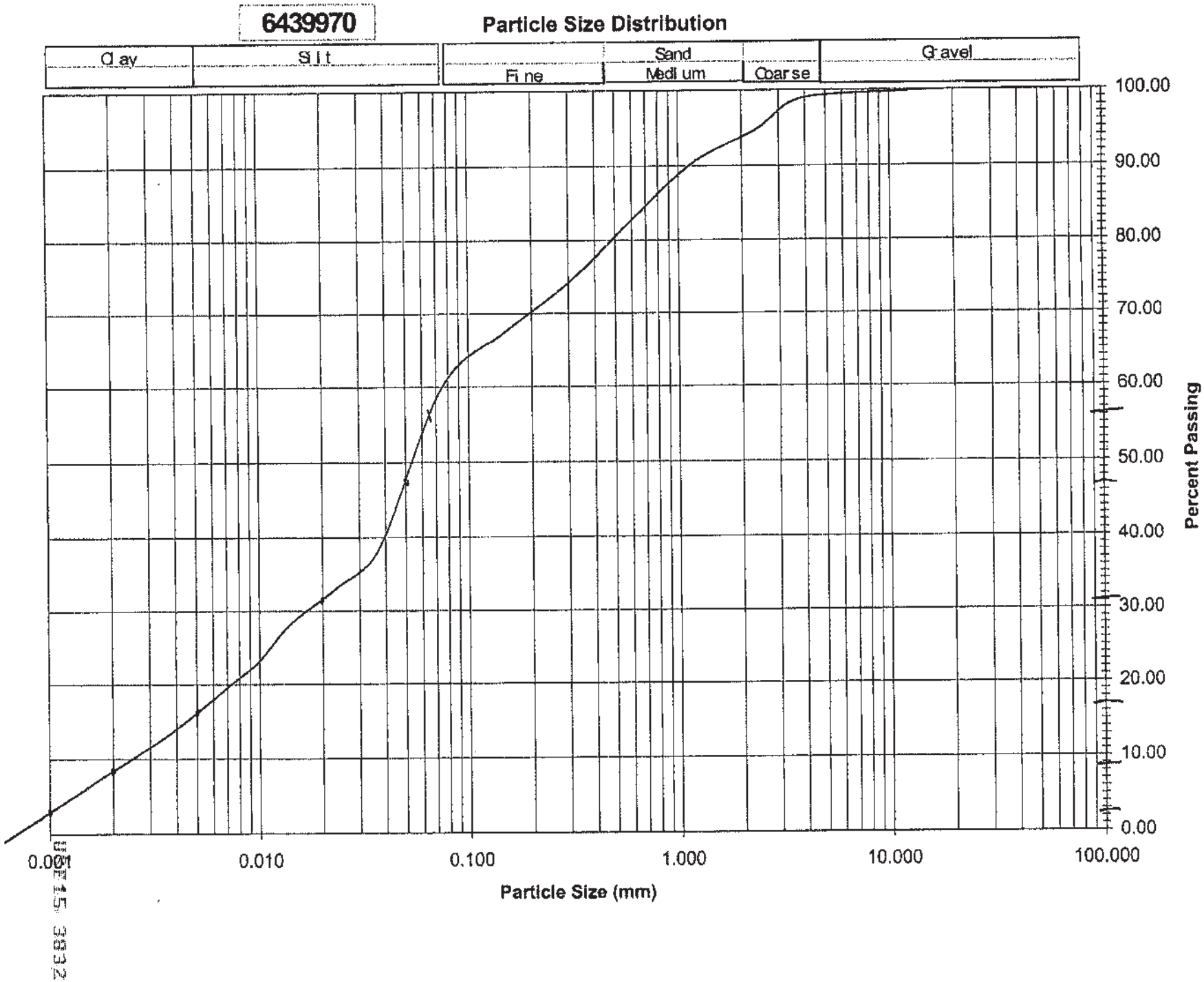
Sieve Size (Mr)	Tare + Smp. Wt.	Tare Weight	Diff. (Mr)	% Passing
# 16	452.40	450.13	2.27	90.4092772
# 30	295.41	291.45	3.96	82.7283299
# 50	268.53	264.12	4.41	74.1745476
# 100	233.42	229.96	3.46	67.4634168
# 200	224.86	220.98	3.88	59.9376402
PAN	388.61	386.88	1.73	

Moisture Tare Weight	Sample Weight	Oven Dry Weight	Ratio
1.0835	5.0079	5.9589	0.9735

Bulk Density Tare Weight	Sample Weight	DI H2O + Smp. Wt.	Vol H2O	Vol Soil	Result
61.1214	15.3341	108.8100	93.4759	6.5241	2.3504

Hydrometer Readings Time	Sample Weight Temp	50.21 Reading	Hydrometer #: 372418 Corr. Rdng.	Part. Size	% Passing
2 minutes	20.0	1.0165	1.011	0.0370	38.2838
5 minutes	20.0	1.0150	1.010	0.0236	33.2198053
15 minutes	20.0	1.0135	1.008	0.0140	28.1558106
30 minutes	20.0	1.0120	1.007	0.0100	23.0918159
60 minutes	20.0	1.0110	1.006	0.0071	19.7158194
250 minutes	20.0	1.0090	1.004	0.0036	12.9638265
1440 minutes	20.0	1.0070	1.002	0.0015	6.21183351

ICDS 21.1551


6439970
Particle Size Distribution
Clay
Silt
Sand
Fine
Medium
Coarse
Gravel
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
Percent Passing
0.001
0.010
0.100
1.000
10.000
100.000
Particle Size (mm)

Lancaster Laboratories

#7103 Particle Size Distribution

Sample: 6439971 Date: 10/24/11 Init./Emp. #: DSS/237 Batch #: 112977103011A

Pan Balance ID#: 9458

Sieve Size (Mr)	Tare + Sample Wt.	Tare Weight
3 Inch	539.12	539.12
1.5 Inch	559.62	559.62
0.75 Inch	556.55	556.42
#4	503.99	503.41
#6	431.95	430.93
#8	432.91	429.53
PAN	633.30	386.82

Time: 1300

Dried Organic Matter: _____

Odor: _____

Bottle code: _____

Prep. sple description: _____

_____

Comments: _____

_____

_____

Sieve Size (Mr)	Tare + Sample Wt.	Tare Weight
#16	451.23	450.17
#30	294.33	291.42
#50	268.79	264.03
#100	233.70	229.43
#200	225.07	220.99
PAN	388.76	386.85

Analytical Balance ID#: 16862

Moisture

Tare Weight	Sample Weight	Oven Dry Weight
1.0851	5.0023	5.9878

Bulk Density

Tare Weight	Sample Weight	DI H_2O + Sple Wt.
61.5256	15.0041	109.1475

Hydrometer Readings Sample Wt. 50.03 Hydrometer ID #: 372418

Time	Temp	Reading	
2 minutes	20°	1.019	
5 minutes	20°	1.017	
15 minutes	20°	1.015	
30 minutes	20°	1.0135	
60 minutes	20°	1.0125	Comments
250 minutes	20°	1.0105	
1440 minutes	20°	1.009	

Foam: —

Org. matter: _____

USF15 3833

Oven ID#: 1171

Oven Temp In: 110°

Oven Temp Out: 111°

Verified by: _____ Date: 10/28-11

Particle Size Distribution

Sample:	Date:	Init/Emp #
6439971	10/24/11	DSS/237

Percent Passing		Particle Size
100.00		75
100.00		37.5
99.95		19
99.72		4.75
99.31		3.35
97.97		2.36
95.85		1.18
90.04		0.6
80.53		0.3
72.00		0.15
63.84	*	0.075
45.36	*	0.03346
38.80	***	0.02163
32.25	**	0.01275
27.33	**	0.00923
24.05	**	0.00658
17.50	**	0.00330
12.58	**	0.00138

* Used for line 1
** Used for line 2
*** Used for lines 1 and 2
\+ Calculated from line 1
++ Calculated from line 2

Log(particle size)
-1.124939
-1.475441
-1.665009
-1.894558
-2.034734
-2.181907
-2.482077
-2.859139

Line 1 Regression Output:	
Constant	116.3939753
Std Err of Y Est	1.7987710
R Squared	0.9904066
No. of Observations	3
Degrees of Freedom	1
X Coefficient(s)	47.1658547
Std Err of Coef.	4.6420139

Line 2 Regression Output:	
Constant	73.4915521
Std Err of Y Est	1.8611060
R Squared	0.9697942
No. of Observations	6
Degrees of Freedom	4
X Coefficient(s)	21.9882761
Std Err of Coef.	1.9402891

Particle Size	Calculated	% Passing
0.064	61 +	60.09
0.05	55 +	55.03
0.02	38 ++	36.13
0.005	21.5 ++	22.90
0.002	15 ++	14.15
0.001	11 ++	7.53

MB/1124 10-28-11

4-SSS 7SS 5ES 9SS

Particle Size Distribution

Sample:	Date:	Init/Emp #
6439971	10/24/11	DSS/237

Sieve Size (Mr)	Tare + Smp. Wt.	Tare Weight	Diff. (Mr)	% Passing
3 inch	539.12	539.12	0.00	100
1.5 inch	559.62	559.62	0.00	100
0.75 inch	556.55	556.42	0.13	99.9483286
# 4	503.99	503.41	0.58	99.7177948
# 6	431.95	430.93	1.02	99.3123733
# 8	432.91	429.53	3.38	97.9689177
PAN	633.30	386.82	246.48	

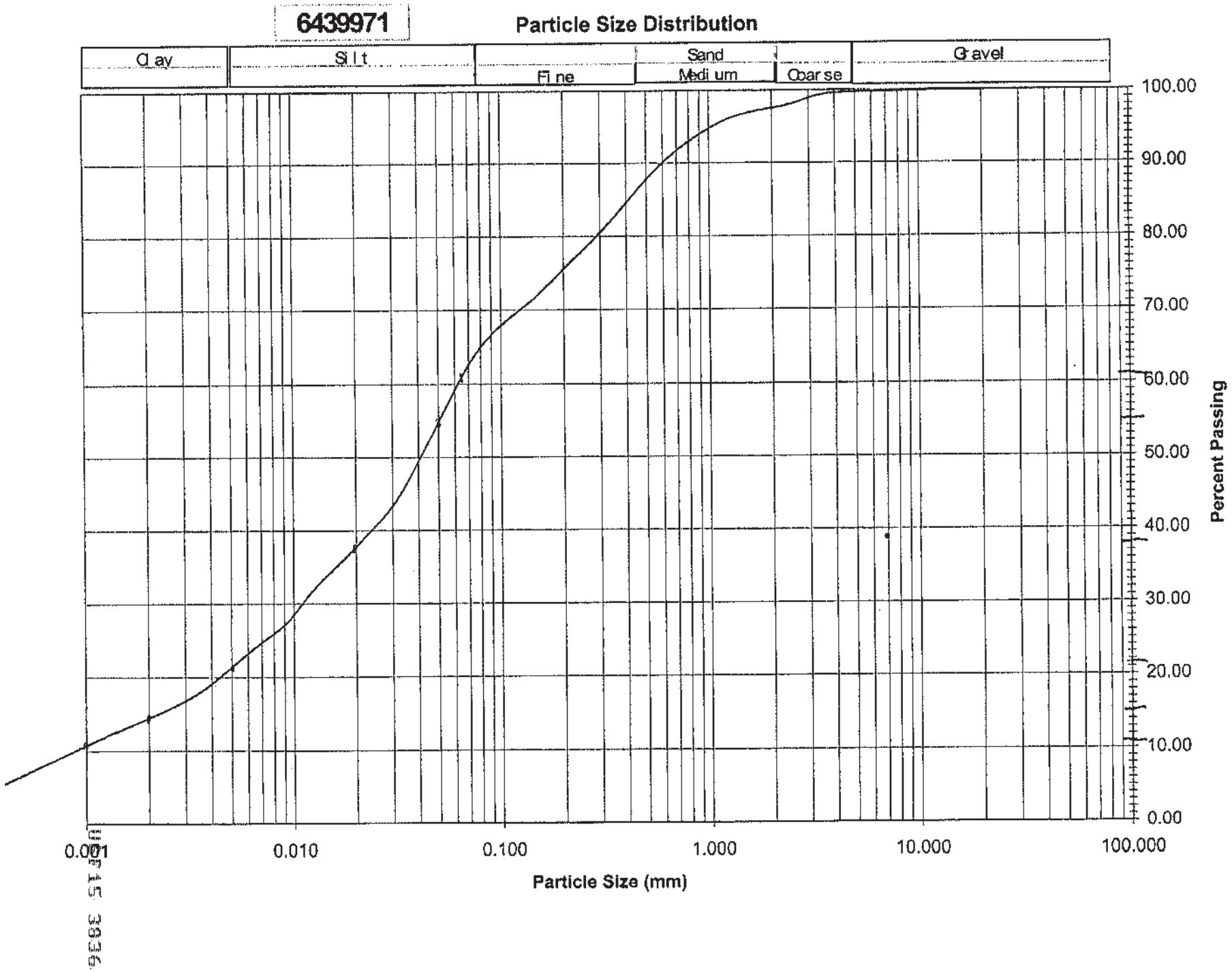
Sieve Size (Mr)	Tare + Smp. Wt.	Tare Weight	Diff. (Mr)	% Passing
# 16	451.23	450.17	1.06	95.8510536
# 30	294.33	291.42	2.91	90.0369173
# 50	268.79	264.03	4.76	80.5265087
# 100	233.70	229.43	4.27	71.9951128
# 200	225.07	220.99	4.08	63.843334
PAN	388.76	386.85	1.91	

Moisture Tare Weight	Sample Weight	Oven Dry Weight	Ratio
1.0851	5.0023	5.9878	0.9801

Bulk Density Tare Weight	Sample Weight	DI H2O + Smp. Wt.	Vol H2O	Vol Soil	Result
61.5256	15.0041	109.1475	94.1434	5.8566	2.5619

Hydrometer Readings	Sample Weight	50.03	Hydrometer #:	372418	
Time	Temp	Reading	Corr. Rdng.	Part. Size	% Passing
2 minutes	20.0	1.0190	1.014	0.0335	45.3561146
5 minutes	20.0	1.0170	1.012	0.0216	38.8017628
15 minutes	20.0	1.0150	1.010	0.0127	32.247411
30 minutes	20.0	1.0135	1.008	0.0092	27.3316471
60 minutes	20.0	1.0125	1.007	0.0066	24.0544712
250 minutes	20.0	1.0105	1.005	0.0033	17.5001194
1440 minutes	20.0	1.0090	1.004	0.0014	12.5843555

ASTM D 422


6439971
Particle Size Distribution
Clay
Silt
Sand
Fine
Medium
Coarse
Gravel
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
Percent Passing
0.001
0.010
0.100
1.000
10.000
100.000
Particle Size (mm)

Lancaster Laboratories

#7103 Particle Size Distribution

Sample: 6439972 Date: 10/24/11 Init./Emp. #: DSS/237 Batch #: 112977103O1A

Pan Balance ID#: 9458

Sieve Size (Mr)	Tare + Sample Wt.	Tare Weight
3 Inch	539.12	539.12
1.5 Inch	559.62	559.62
0.75 Inch	556.52	556.44
#4	503.51	503.47
#6	431.13	430.94
#8	430.53	429.48
PAN	691.93	386.84

Time: 1300

Dried Organic Matter: _____

Odor: _____

Bottle code: _____

Prep. sple description: _____

Comments: _____

Sieve Size (Mr)	Tare + Sample Wt.	Tare Weight
#16	451.23	450.17
#30	299.14	291.43
#50	278.08	264.00
#100	240.70	229.49
#200	227.94	220.95
PAN	388.55	386.81

Analytical Balance ID#: 16862

Moisture

Tare Weight	Sample Weight	Oven Dry Weight
1.0953	5.0030	6.0359

Bulk Density

Tare Weight	Sample Weight	DI H_2O + Sple Wt.
68.6996	15.0031	108.5309

Hydrometer Readings Sample Wt. 50.15 Hydrometer ID #: 372418

Time	Temp	Reading	Comments
2 minutes	20°	1.007	
5 minutes	20°	1.0065	
15 minutes	20°	1.006	
30 minutes	20°	1.006	
60 minutes	20°	1.0055	
250 minutes	20°	1.005	
1440 minutes	20°	1.005	

Foam: _____

Org. matter: _____

USF15 3837

Oven ID#: 1171

Oven Temp In: 110°

Oven Temp Out: 111°

Verified by: _____ Date: 10/28/11

Particle Size Distribution

Sample:	Date:	Init/Emp #
6439972	10/24/11	DSS/237

Percent Passing		Particle Size
100.00		75
100.00		37.5
99.97		19
99.96		4.75
99.90		3.35
99.56		2.36
97.43		1.18
81.93		0.6
53.62		0.3
31.09		0.15
17.04	*	0.075
6.51	*	0.04084
4.74	***	0.02610
2.97	**	0.01507
2.97	**	0.01065
1.20	**	0.00761
-0.57	**	0.00373
-0.57	**	0.00155

* Used for line 1
** Used for line 2
*** Used for lines 1 and 2
\+ Calculated from line 1
++ Calculated from line 2

Log(particle size)
-1.124939
-1.388931
-1.583426
-1.821984
-1.972499
-2.118629
-2.428522
-2.808733

Line 1 Regression Output:	
Constant	47.0916872
Std Err of Y Est	2.8057194
R Squared	0.9109736
No. of Observations	3
Degrees of Freedom	1
X Coefficient(s)	27.5783865
Std Err of Coef.	8.6213520

Line 2 Regression Output:	
Constant	11.5597882
Std Err of Y Est	0.7756913
R Squared	0.8949666
No. of Observations	6
Degrees of Freedom	4
X Coefficient(s)	4.6028089
Std Err of Coef.	0.7884122

Particle Size	Calculated		% Passing
0.064	14	+	14.17
0.05	9	+	11.21
0.02	3	++	3.74
0.005	0	++	0.97
0.002	0	++	-0.86
0.001	0	++	-2.25

M16/1124 10/28/11

DSS 15 6439972

Particle Size Distribution

Sample:	Date:	Init/Emp #
6439972	10/24/11	DSS/237

Sieve Size (Mr)	Tare + Smp. Wt.	Tare Weight	Diff. (Mr)	% Passing
3 inch	539.12	539.12	0.00	100
1.5 inch	559.62	559.62	0.00	100
0.75 inch	556.52	556.44	0.08	99.9738946
# 4	503.51	503.47	0.04	99.9608419
# 6	431.13	430.94	0.19	99.8988416
# 8	430.53	429.48	1.05	99.5562082
PAN	691.93	386.84	305.09	

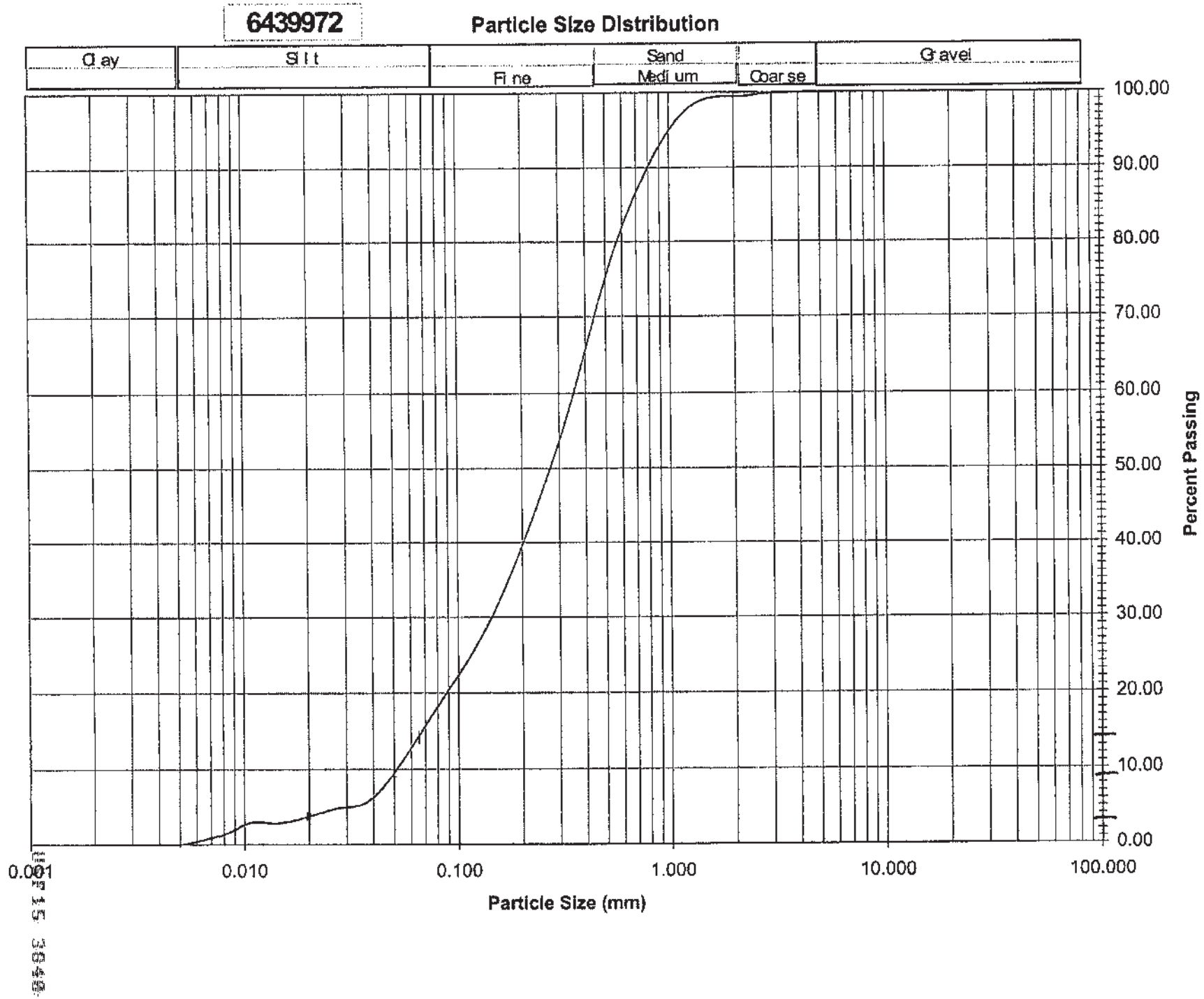
Sieve Size (Mr)	Tare + Smp. Wt.	Tare Weight	Diff. (Mr)	% Passing
# 16	451.23	450.17	1.06	97.4253523
# 30	299.14	291.43	7.71	81.9263909
# 50	278.08	264.00	14.08	53.6221916
# 100	240.70	229.49	11.21	31.0873852
# 200	227.94	220.95	6.99	17.0357976
PAN	388.55	386.81	1.74	

Moisture Tare Weight	Sample Weight	Oven Dry Weight	Ratio
1.0953	5.0030	6.0359	0.9875

Bulk Density Tare Weight	Sample Weight	DI H2O + Smp. Wt.	Vol H2O	Vol Soil	Result
68.6996	15.0031	108.5309	93.5278	6.4722	2.3181

Hydrometer Readings	Sample Weight	50.15	Hydrometer #:	372418	
Time	Temp	Reading	Corr. Rdng.	Part. Size	% Passing
2 minutes	20.0	1.0070	1.002	0.0408	6.5050733
5 minutes	20.0	1.0065	1.001	0.0261	4.73739034
15 minutes	20.0	1.0060	1.001	0.0151	2.96970738
30 minutes	20.0	1.0060	1.001	0.0107	2.96970738
60 minutes	20.0	1.0055	1.000	0.0076	1.20202441
250 minutes	20.0	1.0050	1.000	0.0037	-0.5656585
1440 minutes	20.0	1.0050	1.000	0.0016	-0.5656585

GEO 3075


6439972
Particle Size Distribution
Clay
Silt
Sand
Gravel
Fine
Medium
Coarse
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
Percent Passing
0.001
0.010
0.100
1.000
10.000
100.000
Particle Size (mm)

Lancaster Laboratories

#7103 Particle Size Distribution

Sample: 6439973 Date: 10.25.11 Init./Emp. #: DSS/237 Batch #: 112987103011

Pan Balance ID#: 9458

Sieve Size (Mr)	Tare + Sample Wt.	Tare Weight
3 Inch	539.17	539.17
1.5 Inch	559.66	559.66
0.75 Inch	576.29	556.51
#4	507.31	503.45
#6	432.30	430.91
#8	432.47	429.62
PAN	626.96	386.96

Time: 1500

Dried Organic Matter:

rock

Odor:

Bottle code: 73/7

Prep. sple description:

Comments:

Sieve Size (Mr)	Tare + Sample Wt.	Tare Weight
#16	451.45	450.18
#30	295.83	291.42
#50	275.66	264.12
#100	239.55	229.49
#200	228.16	220.94
PAN	388.47	386.80

Analytical Balance ID#: 16862

Moisture

Tare Weight	Sample Weight	Oven Dry Weight
1.0973	5.0046	6.0249

Bulk Density

Tare Weight	Sample Weight	DI H_2O + Sple Wt.
59.7846	15.0478	108.8228

Hydrometer Readings Sample Wt. 50.21 Hydrometer ID #: 372418

Time	Temp	Reading	Comments
2 minutes	20°	1.0095	
5 minutes	20°	1.0085	
15 minutes	20°	1.008	
30 minutes	20°	1.0075	
60 minutes	20°	1.007	
250 minutes	20°	1.006	
1440 minutes	20°	1.0055	

Foam:

Org. matter:

USF15 3841

Oven ID#: 117

Oven Temp In:

Oven Temp Out: 110°

Verified by: MJH02 Date: 10-31-11

Particle Size Distribution

Sample:	Date:	Init/Emp #
6439973	10/25/11 15.00	DSS/237

Percent Passing		Particle Size
100.00		75
100.00		37.5
92.62		19
91.18		4.75
90.66		3.35
89.59		2.36
87.29		1.18
79.30		0.6
62.01		0.3
43.78		0.15
30.70	*	0.075
13.41	*	0.03881
10.32	***	0.02481
8.78	**	0.01433
7.23	**	0.01020
5.69	**	0.00721
2.60	**	0.00357
1.05	**	0.00150

* Used for line 1
** Used for line 2
*** Used for lines 1 and 2
\+ Calculated from line 1
++ Calculated from line 2

Log(particle size)
-1.124939
-1.411001
-1.605335
-1.843893
-1.991372
-2.141886
-2.447303
-2.823129

Line 1 Regression Output:	
Constant	78.5442510
Std Err of Y Est	4.1796281
R Squared	0.9275319
No. of Observations	3
Degrees of Freedom	1
X Coefficient(s)	43.7543449
Std Err of Coef.	12.2301078

Line 2 Regression Output:	
Constant	23.2851458
Std Err of Y Est	0.5921696
R Squared	0.9781147
No. of Observations	6
Degrees of Freedom	4
X Coefficient(s)	8.0947585
Std Err of Coef.	0.6054179

Particle Size	Calculated % Passing	
0.064	27 +	26.31
0.05	20 +	21.62
0.02	9.5 ++	9.53
0.005	4 ++	4.66
0.002	1.5 ++	1.44
0.001	0 ++	-1.00

MG/1124 10/31/11

USF-ES 2342

Particle Size Distribution

Sample:	Date:	Init/Emp #
6439973	10/25/11 15.00	DSS/237

Sieve Size (Mr)	Tare + Smp. Wt.	Tare Weight	Diff. (Mr)	% Passing
3 inch	539.17	539.17	0.00	100
1.5 inch	559.66	559.66	0.00	100
0.75 inch	576.29	556.51	19.78	92.6177502
# 4	507.31	503.45	3.86	91.1771292
# 6	432.30	430.91	1.39	90.6583563
# 8	432.47	429.62	2.85	89.5946854
PAN	626.96	386.90	240.06	

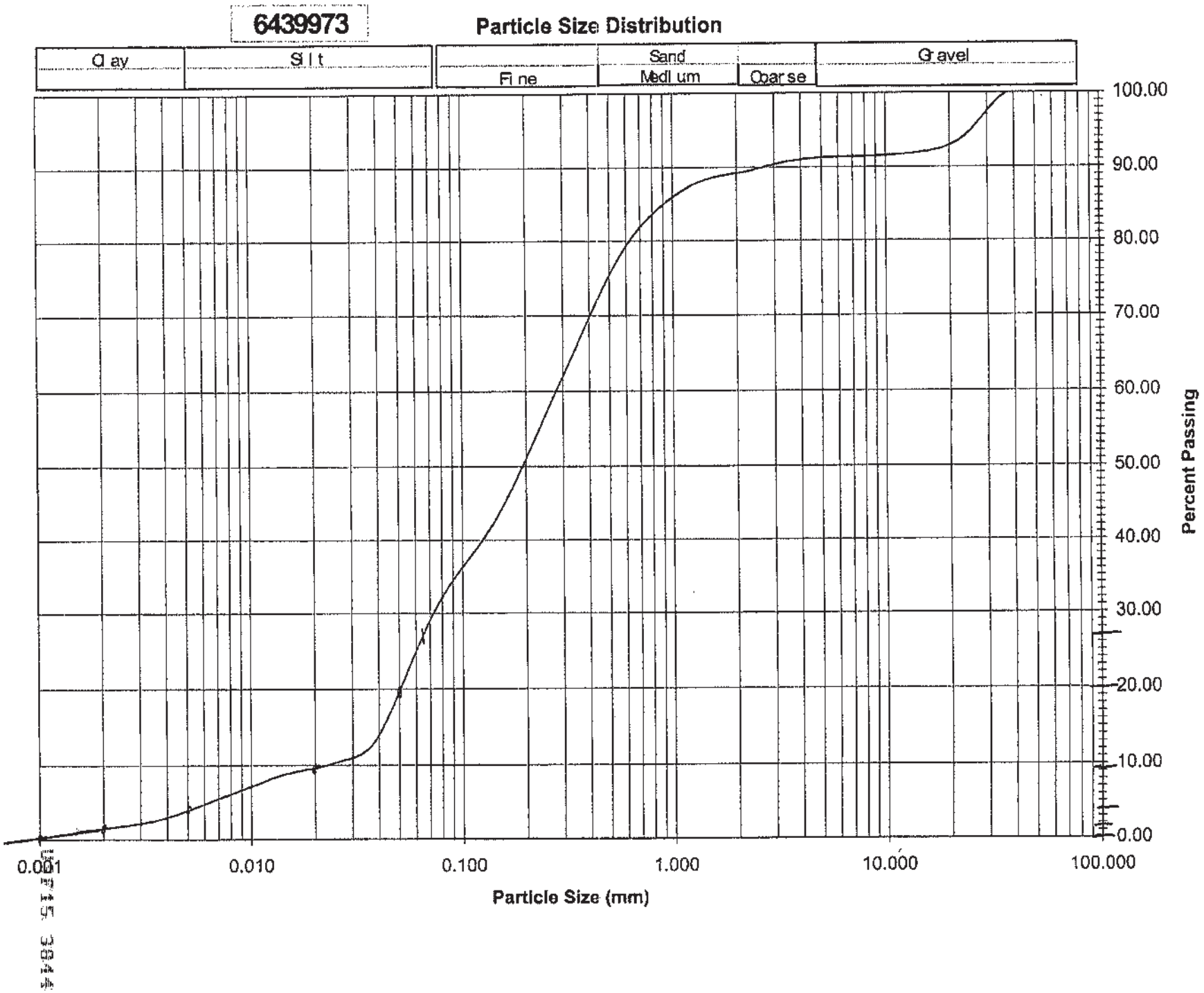
Sieve Size (Mr)	Tare + Smp. Wt.	Tare Weight	Diff. (Mr)	% Passing
# 16	451.45	450.18	1.27	87.2930863
# 30	295.83	291.42	4.41	79.3009195
# 50	273.66	264.12	9.54	62.0117422
# 100	239.55	229.49	10.06	43.7801779
# 200	228.16	220.94	7.22	30.6954966
PAN	388.47	386.80	1.67	

Moisture Tare Weight	Sample Weight	Oven Dry Weight	Ratio
1.0873	5.0046	6.0149	0.9846

Bulk Density Tare Weight	Sample Weight	DI H2O + Smp. Wt.	Vol H2O	Vol Soil	Result
59.7846	15.0478	108.8228	93.7750	6.2250	2.4173

Hydrometer Readings Time	Sample Weight Temp	50.21 Reading	Hydrometer #: Corr. Rdng.	372418 Part. Size	% Passing
2 minutes	20.0	1.0095	1.004	0.0388	13.4147399
5 minutes	20.0	1.0085	1.003	0.0248	10.323786
15 minutes	20.0	1.0080	1.003	0.0143	8.77830908
30 minutes	20.0	1.0075	1.002	0.0102	7.23283213
60 minutes	20.0	1.0070	1.002	0.0072	5.68735518
250 minutes	20.0	1.0060	1.001	0.0036	2.59640128
1440 minutes	20.0	1.0055	1.000	0.0015	1.05092433

ASTM D422


6439973
Particle Size Distribution
Clay
Silt
Sand
Gravel
Fine
Medium
Coarse
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
Percent Passing
0.001
0.010
0.100
1.000
10.000
100.000
Particle Size (mm)